BAYONNE BARREL AND DRUM CO. SITE
NEWARK, NEW JERSEY

START ONE
ADMINISTRATIVE RECORD*
INDEX OF DOCUMENTS

1.0 FACTUAL INFORMATION/DATA

1.1 Preliminary Assessment

P. 100001-100006 Report: Preliminary Assessment, Bayonne Barrel and Drum Co., prepared by Mr. Edward Gaven, HSMS III, New Jersey Department of Environmental Protection ("NJDEP") Bureau of Planning and Assessment, October 24, 1988.

1.2 Site Evaluation/Investigation

P. 100007-100051 Report: Site Audit of Bayonne Barrel and Drum, prepared by Ms. Tamre Noblet, TAT RSO, and Mr. Mark Denno, TAT-QC, to Mr. Joseph Cosentino, USEPA, August 10, 1994. (Attached: Health and Safety Inspection of Bayonne Barrel and Drum, prepared by Ms. Tamre Noblet, TAT RSO, and Mr. Mark Denno, TAT-QC, to Mr. Joseph Cosentino, USEPA, August 4, 1994.)

P. 100052-100060 Report: Removal Site Evaluation for the Bayonne Barrel and Drum Site, Newark, New Jersey, prepared by Mr. Nick Magriples, On-Scene Coordinator, Technical Support Section, January 27, 1992.

1.3 POLREPs

P. 100061-100062 Pollution Report Three, Progress POLREP, Bayonne Barrel and Drum, Newark, Essex County, New Jersey, prepared by Mr. Joseph V. Cosentino, Recipients: See Distribution List, August 10, 1994.

P. 100063-100064 Pollution Report Two, Progress POLREP, Bayonne Barrel and Drum, Newark, Essex County, New Jersey, prepared by Mr. Joseph V. Cosentino, Recipients: See Distribution List, August 4, 1994.

P. 100065-100067 Pollution Report One, Initial POLREP, Bayonne Barrel and Drum, Newark, Essex County, New Jersey, prepared by Mr. Joseph V. Cosentino, Recipients: See Distribution List, July 26, 1994.

* Administrative Record File Available September 20, 1994.

*Administrative Record File Available September 20, 1994.

1.5 Health and Safety Plan

P. 100068-100084 Report: Health and Safety Plan, Emergency Response/Site Investigation, prepared by Mr. V. Vicenty, Lead TAT, Weston Major Programs Division, November 7, 1991.

1.6 Sampling Plan

P. 100085-100096 Report: Sampling Plan for Bayonne Barrel and Drum Site, Newark, New Jersey, prepared for Mr. Nick Magriples, Removal Action Branch, USEPA, by Mr. Victor Vicenty, Region II Technical Assistance Team, Roy F. Weston, Inc., undated.

1.7 Sampling Data/Data Summary Sheets/Chain of Custody Forms**

P. 100097-100112 Memorandum to Mr. Nick Magriples, EPA OSC, from Mr. Victor Vicenty, TAT PM and Mr. Michael Mentzel, TAT QC, Re: Summary of Bayonne Barrel and Drum Assessment and Sampling Trip Report, US Highway 1 and Raymond Boulevard, Newark, Essex County, New Jersey, July 22, 1992.

P. 100113-100130 Sampling Results: Bayonne Barrel and Drum RCRA Sampling Results (NJD009871401), prepared by Mr. Louis DiGuardia, Geologist, Source Monitoring Section, USEPA, to Mr. William K. Sawyer, Esq., Waste and Toxic Substances Branch, USEPA, May 16, 1984.

1.8 Inspection Reports

P. 100131-100156 Letter: Transmittal of RCRA Enforcement Inspection for Bayonne Barrel and Drum, to Mr. George Meyer, Chief, Hazardous Waste Compliance Branch, from Mr. Michael Ferriola, Environmental Scientist, Source Monitoring Section, August 19, 1988. (Attached: Report: RCRA Enforcement Inspection, Bayonne Barrel and Drum, Newark, New Jersey, NJD009871401, prepared by Mr. Michael Ferriola, Environmental Scientist, Source Monitoring Section, USEPA, for the Director of the Surveillance and Monitoring Branch, USEPA, June 2, 1988.)

** Additional Sampling Data and Results available in the Bayonne Barrel and Drum Co. Site File located at the Superfund Removal Record Center, USEPA, Edison, New Jersey.

*Administrative Record File Available September 20, 1994.

1.11 Correspondence

P. 100157- Letter, to Mr. Richard D. Spear, Chief, Surveillance and Monitoring Branch, USEPA, from Mr. Richard C. Salkie, Associate Director for Removal and Emergency Preparedness Programs, USEPA, Re: Request for ESD Sampling and Analytical Assistance, November 5, 1991.

2.0 DECISION DOCUMENTS

2.2 Action Memorandum

P. 200001- 200025 Action Memorandum to Mr. William J. Muszynski, P.E. Deputy Regional Administrator, from Mr. Joseph V. Cosentino, On-Scene Coordinator, Removal Action Branch, Technical Support Section, Re: Confirmation of Verbal Authorization and Ceiling Increase to Conduct a CERCLA Removal Action at the Bayonne Barrel and Drum Site, Newark, New Jersey, August 9, 1994 (unsigned). (Attached: Site Map created by Roy F. Weston, Inc., Major Programs Division, (undated); Memorandum to Mr. Nick Magriples, ERRD-RA, Edison, from Mr. Arthur Block, Senior Regional Representative, Agency for Toxic Substances and Disease Registry (ATSDR), dated February 11, 1992, re: ATSDR issuance of official health consultation on the site as requested by U.S. EPA Removal Program; Memorandum to Mr. Arthur Block, Public Health Advisor, ATSDR Regional Services, U.S. EPA Region II, from Chief, TSS, ERCB, DHAC, ATSDR (E32), Environmental Health Scientist, TSS, ERCB, DHAC, ATSDR (E32), Re: Health Consultation on Bayonne Barrel and Drum Site, dated January 8, 1992.

2.3 Documentation of State Involvement

P. 200026- 200028 Letter to Ms. Kathleen Callahan, Director, Emergency and Remedial Response Division, U.S. Environmental Protection Agency, from Mr. Karl J. Delaney, Director, State of New Jersey Department of Environmental Protection and Energy (NJDEPE), Division of Responsible Party Site Remediation, Re: Removal Request by NJDEPE to U.S. EPA on Bayonne Barrel and Drum Co. Site, dated September 30, 1991.

*Administrative Record File Available September 20, 1994.

5.0 OTHER AGENCY DOCUMENTS

5.4 ATSDR/Other Health Assessments

P. 500001-500004 Memorandum, to Mr. Nick Magriples, OSC, RAB, ERRD/RA, from Mr. Arthur Block, Senior Regional Representative, Agency for Toxic Substances and Disease Registry, Re: Bayonne Barrel and Drum Site ATSDR Record of Activity Reference Conference Call November 27, 1991, dated December 9, 1991.

*Administrative Record File Available September 20, 1994.

(8)
no

PRELIMINARY ASSESSMENT

BAYONNE BARREL AND DRUM CO.
154 RAYMOND BLVD.
NEWARK, ESSEX COUNTY, N.J.
EPA ID # NJD009871401

GENERAL INFORMATION AND SITE HISTORY

Bayonne Barrel and Drum Co. is an inactive facility located in an industrial area of Newark, bordered by Route 1 and 9 to the west, the New Jersey Turnpike to the east, and an empty lot previously occupied by the Newark drive-in movie theater to the south. The site covers approximately 15 acres and consists of three main buildings and a large yard area. Most of the site is in Block 5002 Lot 3 (9.3 acres) and is owned by Bayonne Barrel and Drum Co. Block 5002 Lot 14 (5.5 acres) is owned by Frank Langella, principal owner of BBD, and is used as part of the facility for drum storage.

Bayonne Barrel and Drum Co. operated a drum reconditioning facility at the site from the early 1940's until about 1982 when the company filed for bankruptcy. According to NJ Department of State records, Bayonne Barrel and Drum Co. incorporated in 1937 under the name of Export Barrel Co. The name was changed to Bayonne Barrel and Drum Co. in 1942. Property deed records for Essex County indicate a history of site ownership as follows:

Bayonne Barrel and Drum Co.	1945 - present
Colville Bros. Inc.	1933 - 1945
Barbara and Henry Smith	1931 - 1933
B & F Co. Inc.	Prior to 1931

N.J. Department of State records indicate that B & F Co. incorporated in 1931 and dissolved in 1935; Colville Bros. incorporated in 1933 and dissolved in 1945.

Sanborn fire insurance maps show a drum reconditioning facility at the site as early as 1931, owned by B & F Co. Inc. The buildings present at the site were labeled as "tenant occupied" and included crate and drum storage, and drum cleaning areas. A review of aerial photography was conducted in 1986 by Louis Berger and Associates, a consultant for the N.J. Turnpike Authority which is proposing to construct a right-of-way over a portion of the BBD property. The following areas of potential environmental concern were noted:

1947 - landfill activity in the southern portion of the site.
- lagoon near eastern site boundary.
- drainage channels connecting lagoon to Passaic River.
- large open storage area containing several thousand drums.

1959 - N.J. Turnpike construction near eastern site boundary.
- liquid filled trench near old lagoon location.
- small waste disposal area in northeast corner of site.

1985 - dark ground staining along eastern site boundary.
- large mound of dark material (ash) near western edge of site.
- lagoon and waste disposal areas no longer evident.

Currently, the site contains several buildings, an incinerator, above-ground and underground storage tanks, an ash/sludge pile and an empty drum storage area (30,000 drums estimated). Since BBD filed for bankruptcy a portion of the site has been leased and used to repair and maintain trailers and cargo containers. A one-acre parcel near the northern boundary is reportedly leased to Nationwide Tire and contains a pile of used automobile tires.

SITE OPERATIONS OF CONCERN

Operations at the BBD facility involved both closed head and open head drums. The closed head system employed chains and caustic solution to remove residues in the drums. Spent solution from the process drained through an oil/water separator trench into a 5,000-gallon underground tank, and then was pumped into a 60,000-gallon above-ground holding/settling tank prior to being discharged to the sewer under a permit with the Passaic Valley Sewage Commission. Open head drums were placed on a conveyer and processed through the incinerator with residue from the process collected in two subsurface holding/settling tanks, and then placed into a dumpster/trailer prior to being manifested off-site.

Past inspections by NJDEP representatives during 1982 and 1984 reported the following items:

- 40,000 pounds per month of incinerator ash and sludge generated at the facility, most of which was being sent to S & W Waste in Kearny, N.J.; a lesser amount was disposed of at GROWS Landfill in Morrisville, Pa.

- wastewater overflow from the 5,000-gallon tank was observed entering a storm sewer as a result of a frozen pump and broken lines to the tank; the storm sewer reportedly flows to a small creek leading to the Passaic River.

- oil staining on ground surface near the above-ground tank.

- ash/sludge material on ground surface around incinerator.

- ash/sludge pile (220' x 50' x 4') on ground in rear of property, uncovered with no containment or runoff control.

- approximately 30,000 drums stacked on ground in rear of property; a random survey indicated about half of the drums contained some amount of material.

The ash pile and rows of drums (30,000 estimated) still remain in the rear of the property. The plastic cover over the ash pile is in poor condition , leaving the pile partially uncovered. In addition, a RCRA enforcement inspection conducted by EPA during June 1988 noted a large ash pile and 100-150 drums containing ash and aqueous materials in a building near the incinerator. There is also an ash pile in the courtyard between the incinerator and furnace room building.

A NJPDES-DGW permit (NJ 0064068) was issued to Bayonne Barrel and Drum Co. and several adjacent property owners in order to monitor groundwater in the vicinity of an old landfill area which was reportedly active prior to 1947, known as the 15E sanitary landfill. The landfill covers approximately 45

acres and received construction and demolition debris. It is located in the area between Foundry Street and Raymond Blvd. and encompassed the southern portion of the BBD site and the former drive-in movie theater to the south. The permit was issued 2/15/88 and includes 13 groundwater monitoring wells.

GROUNDWATER ROUTE

A soil and groundwater characterization report for the BBD site was submitted by Dan Raviv Associates in July 1986. The report contains soil and groundwater sampling data and information on site geology and groundwater conditions. Soil and well boring data indicate that the site is underlain by the following materials:

- black coal-cinder fill material: 0-10 feet
- medium to coarse grained sand: 10-40 feet
- dark red-brown coarse silt: 40-50 feet
- dark red shale (Brunswick Formation): below 50 feet

Field investigations by Dan Raviv Associates included the installation of four monitoring wells (20-50 feet deep) and one well point (10 feet deep). The monitoring wells included two background locations, one near the ash pile, and one near the oil storage tanks the northeast portion of the site. Groundwater samples were analyzed for volatile organics, petroleum hydrocarbons, and PCB's. The monitoring well near the above-ground tank (downgradient location) was also analyzed for priority pollutants. Depth to groundwater is 3-4 feet and the direction of flow is toward the east.

Sampling data indicate that groundwater beneath the site is contaminated with volatile organics, petroleum hydrocarbons, and PCB's at concentrations significantly above background. The monitoring well near the ash pile showed low level contamination with benzene (28 ppb), napthalene (14 ppb), and di-n-butylphthalate (28 ppb). Groundwater in the northeast portion of the site near the oil storage tanks was found to be contaminated with PCB's (53 ppb), petroleum hydrocarbons (2,000 ppm), toluene (150 ppb), chlorobenzene (67 ppb), ethylbenzene (1,060 ppb), dichlorobenzenes (76 ppb), and various non-priority pollutant organics including cyclohexane (60 ppb), cycloheptane (100 ppb), isopropylbenzene (90 ppb), n-propylbenzene (150 ppb), ethyl toluene isomers (550 ppb), trimethylbenzene isomers (1400 ppb), and xylene isomers (2000 ppb).

A soil and groundwater study was also completed by Louis Berger Associates in 1986 in order to characterize contamination in the proposed NJ Turnpike right-of-way adjacent to the eastern site boundary. Two additional monitoring wells were installed in this area and the results showed contamination with volatile organics (up to 98 ppb), polynuclear aromatic hydrocarbons (34 ppb), phenol (877 ppb), and 2,4-dimethylphenol (860 ppb).

NJDEP water supply overlay and water allocation maps show no major public supply wells within a 3 mile radius of the site. Groundwater in the area is not used for drinking, however there are a number of industrial supply wells on the order of 200-700 feet deep which draw from the Brunswick Formation. Downward migration of contaminants at the BBD site could have an adverse impact on water quality of the Brunswick Formation.

SURFACE WATER ROUTE

The nearest downslope surface water is the Passaic River about 2000 feet to

the east, which empties into the Newark Bay roughly one mile south of the site. Storm sewers at the site reportedly lead to Harrison's Creek and the Passaic River. A NJDEP inspection in 1982 reported wastewater flowing into a storm sewer as a result of equipment malfunctions at the facility. Sample of the wastewater discharge to the storm sewer showed contamination with benzene, toluene, xylene, ethylbenzene, methylene chloride, and 1,1,1-trichloroethane. The Passaic River is used for industrial purposes and occasional recreational boating.

AIR ROUTE

There are no records of air sampling conducted at the site. The facility had 12 air pollution control permits during its operation (plant ID #05103) that included drum cleaning units, paint spray booths and ovens, drum incinerator, baghouses, and a deisel fuel and gasoline tank.

During 1978 the facility was cited for opacity violations which resulted from drums not being emptied properly prior to incineration. Hydrogen sulfide type odors and other strong odors were noted by Louis Berger Associates during work along the eastern portion of the site, and by road workers during construction along Route 1 and 9. The potential for air contamination exists due to the documented volatile organic contamination at the site, however there are other sources of air pollution in the area from adjacent highways and the Newark Airport located about three miles to the south.

SOIL

Field work completed by Dan Raviv Associates included soil samples from 19 soil borings (up to 15 feet deep) and five well borings (up to 42 feet deep). A total of 71 soil samples were analyzed at depths ranging from 0-22 feet for a variety of parameters including total petroleum hydrocarbons, volatile organics, PCB's, and priority pollutant scan. One sample was analyzed for dioxin. The highest levels of soil contamination detected at the site are listed as follows:

total priority volatile organics -	22,553 ppb
total non-priority volatile organics -	66,035 ppb
total petroleum hydrocarbons -	173,000 ppm
PCB's	320 ppm
arsenic	390 ppm
cadmium	1300 ppm
chromium	3400 ppm
copper	15,500 ppm
lead	8,400 ppm
mercury	13.0 ppm
zinc	5040 ppm

Petroleum hydrocarbon concentrations above 100 ppm were detected throughout the site at depths up to ten feet. Volatile organic and PCB contamination was detected in the oil storage tanks area, drum storage area, and ash pile area. The highest metal contamination was found near the ash pile and drum storage areas in the rear of the property.

DIRECT CONTACT

No reported incidents of direct contact were noted in Department files. The potential for direct contact is low since the facility is inactive and surrounded by a fence. The nearest residential area is about 1/2 mile to

the west. There is a potential for exposure by highway construction workers next to the site and the few security and maintenance staff at the facility. Past BBD employees may have been exposed to hazardous materials due to sloppy housekeeping and waste handling practices and contamination which has been documented throughout the site.

FIRE AND EXPLOSION

NJDEP Enforcement files contain two reports of fires at the site, however these did not directly involve hazardous substances or wastes present at the facility. A brush fire in 1985 encompassed the portion of the site containing the automobile tire pile, but did not spread to the rows of drums in the rear of the property. A smaller brush fire also occurred at the site in 1986. Most of the drums stacked in the rear of the property (30,000 estimated) are reported to be empty, however there may be volatile or flammable residues present in some of the drums. EPA inspectors noted 100-150 drums containing ash residues and aqueous materials in a building near the incinerator area during a recent inspection and sampling episode. Samples collected from an ash pile inside the building and an aqueous drum sample showed volatile organic contamination, representing a potential fire or explosion hazard.

ADDITIONAL CONSIDERATIONS

The potential for damage to flora and fauna is low due to the urban location of the site and apparent lack of plant and animal life. Potential migration of contaminants from the site via surface runoff and storm sewers could have an adverse impact on Passaic River biota. The potential for damage to offsite property exists through migration of contaminants in groundwater and surface runoff. Contamination was found in the proposed N.J. Turnpike right-of-way adjacent to the eastern site boundary.

EPA RCRA ENFORCEMENT INSPECTION

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum on 6/2/88 by EPA Region II personnel. The facility was found to be in violation of RCRA and TSCA violations based upon sampling results and a visual inspection of the site. Analytical data showed that several waste ash piles present at the site are considered a hazardous waste due to levels of cadmium above RCRA criteria limits for EP Toxicity. An aqueous drum sample showed PCB contamination of 115 ppm and 293 ppm for arochlor 1248 and 1252, respectively. Approximately 100-150 drums were observed in the drum and ash storage room which were not labelled as a hazardous waste and apparently stored for greater than 90 days.

ENFORCEMENT ACTIONS

An EPA Consent Agreement and Order issued in 1984 cited Bayonne Barrel and Drum Co. for operation of a hazardous waste facility and storage of hazardous wastes without a hazardous waste permit. The order required the facility to implement a soil sampling program and to remove hazardous waste piles present at the site, liquid and sludge from the oil storage tanks, and areas of contaminated soil identified on the property. The facility was also required to submit a closure plan. A soil and groundwater characterization study was completed in 1986, however BBD has not complied with the remaining terms of the consent agreement.

The U.S. Justice Department has filed a suit against the company and its president, Frank Langella, for various violations of RCRA and failure to comply with the terms of the EPA consent agreement. The case is currently

in litigation. An attorney for the U.S. Justice Department has indicated that the facility may be sold to a third party which may be willing to conduct the cleanup, in which case the site would be subject to ECRA regulations. As previously mentioned, BBD filed for bankruptcy in 1982 and has reportedly defaulted on a bank loan, thus the bank (First National State Bank) could foreclose and take title to the property but has apparently not done so because they would be considered a responsible party under CERCLA as owner of the site. Both the EPA and U.S. Justice Department have expressed interest in having the NJDEP involved in reviewing any sampling/cleanup plans which may be developed for the site following litigation.

RECOMMENDATIONS

A high priority is assigned to the site due to the documented soil and groundwater contamination and wastes present at the site including several ash piles, 100-150 drums containing ash residues and aqueous materials, and oil storage tanks. The estimated 30,000 drums stacked in rows in the rear of the property are reportedly empty, however some of the drums may contain small amounts of material.

An Site Inspection Review is recommended in lieu of a sampling episode since analytical data is available. At this time the case should be transferred to the Responsible Party Cleanup Element Bureau of Case Management - State Program for overall case management responsibilities. Any future site investigation/remediation efforts should be consistent with ECRA requirements since there is a strong possibility that the facility may be sold thereby necessitating case transfer to the Industrial Site Evaluation Element.

Submitted by:

Edward Gaven

Edward Gaven, HSMS III
NJDEP Bureau of Planning and Assessment
October 24, 1988

WESTON MANAGERS DESIGNERS/CONSULTANTS
1090 King Georges Post Road, Suite 201
Edison, NJ 08837
Phone: 908-225-6116
Fax: 908-225-7037

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-WO-0036

DATE: August 10, 1994

TO: Joe Cosentino, USEPA

FROM: Tamre Noblet, TAT-RSQ
Mark Denno, TAT-QC

THRU: Carl Kelley, TATL

SUBJECT: SITE AUDIT OF BAYONNE BARREL AND DRUM
TDD #02-9407-05 (5007)

On August 1, 1994, Tamre Noblet and Mark Denno of the Region II Technical Assistance Team (TAT), conducted a site audit of documentation procedures and health and safety procedures in use at the Bayonne Barrel and Drum site. The following summarizes the results of the general site audit:

1. Site Logbook

   The site logbook was well maintained and up to date, and contained sufficient documentation to construct a chronology of events for each day. Recommend that directives given by the OSC be included in the site logbook.

2. Site Entry/Exit Logs

   TAT not tasked to maintain site entry/exit logs. The logs are maintained by ERCS for personnel entering and leaving the site. Recommend that site logs be maintained by an independent auditor to ensure no mischarging on 1900-55's.

3. Hot Zone Entry/Exit Logs

   TAT not tasked to maintain hot zone entry/exit logs. The logs are maintained by ERCS. Recommend that hot zone entry/exit logs be maintained by an independent auditor.

4. Instrument Calibration

   TAT completes daily calibration logs of the air monitoring instruments utilized.

also evident from this inspection that TAT could be providing an expanded role in the monitoring of ERCS contractor activities. The following outlines some of the ways to provide for additional/expanded monitoring:

1. Clarification of TDD Requirements

   Element 3 of the TDD requires TAT to provide monitoring of the ERCS contractor. Upon receipt of the TDD, the TAT should have had the OSC clarify what oversight activities were specifically required. At the time of this inspection, the TAT was unable to relate what the OSC's needs and priorities were concerning ERCS oversight.

2. Monitoring of ERCS Air Monitoring

   In addition to the air monitoring being provided by TAT, the Health and Safety Plan directs ERCS to perform periodic air monitoring. The TAT could be performing quality control checks of the air monitoring procedures and results for the OSC, to ensure that the ERCS monitoring is valid and useful. This would require the TAT to receive and review ERCS calibration logs and monitoring logs.

3. Monitoring of Hazardous Characterization Procedures

   The TAT could be providing the OSC with better monitoring of the hazardous characterization procedures, including a review of all the hazardous characterization results and monitoring 10% of the samples being characterized. This would help ensure proper characterization of on-site contaminants.

4. Daily Progress Reports

   The TAT could be providing more complete daily progress reports to the OSC if he was aware of ERCS specific daily activities. This could be accomplished if TAT were routinely included in the preproduction, postproduction, and safety meetings.

Attachments

cc: L. Guarneiri, DPO

WESTON MANAGERS DESIGNERS/CONSULTANTS
1090 King Georges Post Road, Suite 201
Edison, NJ 08837
Phone: 908-225-6116
Fax: 908-225-7037

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-WO-0036

DATE: August 4, 1994

TO: Joe Cosentino, USEPA

FROM: Tamre Noblet, TAT
Mark Denno, TAT

THRU: Carl Kelley, TATL

SUBJECT: HEALTH AND SAFETY INSPECTION OF BAYONNE BARREL AND DRUM
TDD #02-9407-05 (5007)

On August 1, 1994, Tamre Noblet and Mark Denno of the Region 2 Technical Assistance Team (TAT) performed a Health and Safety inspection of the Bayonne Barrel and Drum (BBD) facility in Newark, New Jersey. The purpose of the inspection was to evaluate the implementation of the site-specific Health and Safety Plan (HASP), prepared by OHM, at the BBD facility. The USEPA Health and Safety Audit Guidelines checklist was used as a reference during the writing of this inspection report. A copy of the Health and Safety field review checklist is provided as an attachment to this report, as is a copy of the TAT Field Site Safety Inspection Form.

Overall, the HASP appears to be adequate for the tasks being performed. However, several instances were noted where the HASP was not being followed. In addition, there appears to be a general lack of communication between the TAT representative and the ERCS Project Safety Officer.

The results of the inspection are as follows:

ITEM 4.1.1: Has the employer informed workers or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety, or other hazards of the hazardous waste operation that have been identified?

FINDING: The TAT representative on site had not been briefed on site emergency procedures and was not aware of what actions would need to be taken in case of an emergency.

ITEM 4.2.2: Are site work zones clearly defined on-site (e.g., exclusion zone(s), contamination reduction zone(s), and support zones)?

FINDING: Only the exclusion zones were clearly defined on site. It was not clear which area(s) were designated as the contamination reduction zone(s) and/or the support zone(s).

ITEM 4.3.6: Have the employees working on-site been trained appropriately in safety, health, and other hazards present on the site?

FINDING: Employees may not have been trained on all hazards present on the site because Material Safety Data Sheets (MSDS) have not been supplied for the chemicals used in the laboratory during HAZCAT procedures.

ITEM 4.5.1.5: Is the Personal Protective Equipment (PPE) in place adequate for the chemical and physical hazards on-site?

FINDING: A number of persons were observed not wearing the PPE outlined in the HASP. Specifically, the individual responsible for moving drums from Building A to Building B should be in Level B (not Level C); support zone workers should be in Level D, which includes safety glasses, hard hats, steel-toed work boots and work clothing. Laboratory personnel performing HAZCAT work were wearing appropriate PPE for the activities they were performing (lab coat, safety shoes, and safety glasses), but the HASP incorrectly requires them to wear Level D, which does not require a lab coat, but does require a hard hat.

ITEM 4.8.2: Are standard operating procedures and good work practices being used to minimize employee contact with hazardous substances and with equipment that has contacted hazardous substances?

FINDING: Clean PPE was seen on top of waste drums and air monitoring equipment was left in possibly contaminated areas in the exclusion zone.

ITEM 4.8.4: Are all employees, clothing, and equipment decontaminated properly prior to leaving a contaminated area?

FINDING: Personnel decontamination procedures have been established, however, they are not the procedures that were outlined in the HASP. Also, no area for equipment decontamination could be found. Of specific importance could be that the drum spike is not decontaminated in between drum openings.

ITEM 4.9.1: Are personnel roles, lines of authority, and communication among employees evident in the field (e.g., is the person who would be in charge during an emergency incident clearly identifiable?)

FINDING: The TAT representative has not been made aware of what the emergency procedures are, or who would be in charge during an emergency situation.

ITEM 4.9.5: Are employees familiar with (emergency) decontamination procedures?

FINDING: Employees may not be familiar with emergency decontamination procedures because the generator that runs the emergency personnel decontamination shower had not been started prior to work beginning in the exclusion zone.

ITEM 4.9.6: Are emergency medical treatment and first aid available to employees?

FINDING: Those persons qualified to provide first aid have not been clearly identified.

In addition to the above items, the following general safety issues were noted:

FINDING 1: There are drums located in structurally damaged buildings that need to be assessed. Recommend that an engineer certifies the buildings as structurally sound prior to entering into those areas.

FINDING 2: Site visitors were not briefed prior to entering the facility, and particularly the exclusion zones. All visitors should be briefed on proper LOP, emergency procedures and work zones prior to entering the site.

FINDING 3: While spill containment procedures have probably been implemented, recommend that these procedures be made more formal. For example, all of the spill containment equipment could be kept on a pallet located adjacent to the exclusion zone to ensure easy access to the supplies in case of an emergency.

FINDING 4: The drum overpacking procedure of lowering the drums into the overpack with the bobcat and then dropping them in, is not adequate. Drum slings should be utilized so that drums can be lowered into the overpack drums.

FINDING 5: The backhoe blast shield was left open during remote drum opening operations. Recommend all safety procedures be strictly adhered to during remote drum opening operations.

FINDING 6: Continuous air monitoring for organics and particulates was not performed. Recommend air monitoring be performed, at least adjacent to the remote drum opening operations, on a continuous basis, to ensure that there are no releases into the contamination reduction zone, the support zone, or off-site.

FINDING 7: The action level that was established for particulate monitoring is inappropriate for the contaminants of concern. Recommend that the particulate action level be changed from 10 mg/m^3 (PEL for nuisance dust) to 0.05 mg/m^3 (PEL for lead). It would also be appropriate to have dust suppression procedures in place, so if needed, migration of contaminants into the support zone and/or off-site could be prevented.

FINDING 8: Airline hoses and other debris were obstructing the exit from the exclusion zone in Building B. Recommend that more stringent housekeeping procedures be adhered to, and ensure that hoses do not present a tripping hazard. It is also recommended that the airline hoses be wrapped to provide them additional protection.

Attachments

cc: File

CHAPTER 4

HEALTH AND SAFETY FIELD REVIEW

In the field verification portion of the EPA Audit Guidelines, the user determines the adequacy of health and safety measures in the field. Many of the questions that follow can be answered by observing field activities, interviewing field personnel, and reviewing the written health and safety program. Many questions will provide space for the user of the EPA Audit Guidelines to verify responses from other field personnel. These questions are followed by: "Field Verification 1. _____ 2. _____ 3. _____." Generally, the questions will elicit different responses from field personnel. These questions should be answerable by most field personnel. For instance, questions that provide for additional responses will not be those that can be answered by the EPA Audit Guidelines user through field observation. Certain questions do not require verification by more than one knowledgeable person and, as such, would not be questions that warrant additional field verification.

4.1. Informational Programs - 29 CFR 1910.120(b) and (i)

It is the employer's responsibility to develop and implement a written safety and health program consistent with 29 CFR 1910.120(b) - Safety and health program.

4.1.1 Has the employer informed workers or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety, or other hazards of the hazardous waste operation that have been identified?

[YES] [NO, EXPLAIN]

The TAT representative was not aware of the emergency response procedures.

Field Verification 1. _____ 2. _____ 3. _____

4.1.2 Is the site HASP available on-site for inspection by employees, designated representatives of the employees, EPA, and OSHA personnel (when applicable)?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.1.3 Have health and safety briefings been held prior to the start of site activities and as necessary, to insure that employees remain apprised of the HASP?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.1.3 Are inspections of the site being conducted by the site safety and health supervisor or designee to verify compliance with the plan?

(NOTE: It is the employer's responsibility to correct any deficiencies in the site HASP.)

[YES] [NO, EXPLAIN]

UNKNOWN

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.1.5 _____

_____

4.1.6 _____

_____

SUMMARY OF RESPONSES [YES]____ [NO, EXPLAIN]____

4.2 Site Control - 29 CFR 1910.120(d)

Site control should "minimize potential contamination of workers, protect the public from the site's chemical and physical hazards, facilitate work activities, and prevent vandalism."[1] In accordance with 29 CFR 1910.120(d)(3), the site control plan must include a site map, site work zones, use of a "buddy system," site communications, standard operating procedures or safe work practices, and identification of nearest medical assistance. Often sites are divided into exclusion zone(s), contamination reduction zone(s), and a support zone.

[1] Hazardous Waste Handbook for Health and Safety, p. 149.

4.2.1 Is there a site map that is available to employees?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

NOTE: It is useful if this map depicts such details as topographic features, prevailing wind direction, location of buildings, bodies of water, and known locations of any chemical wastes?

4.2.2 Are site work zones clearly defined on-site (e.g., banner guard or other appropriate indicators)?

[YES] [NO, EXPLAIN]

site work zones are not clearly defined.

Field Verification 1. _____ 2. _____ 3. _____

4.2.3 Does the site control program indicate site work zones (e.g., exclusion zone(s), contamination reduction zone(s), and support zones)?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.2.4 Are on-site communication systems such as walkie talkies or blasting horns available to alert employees in the event of a site evacuation?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.2.5 Has the route to the nearest comprehensive medical treatment facility been made available to on-site employees?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.2.6 Is the site perimeter indicated appropriately, (e.g., existing fenceline, boundary markings, security patrol) and labeled with appropriate warning signs to alert nearby residents to the potential on-site hazards?

[YES] [NOT AVAILABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.2.7 Are emergency phone numbers conspicuously posted at the site?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.2.8 _____

_____

4.2.9 _____

_____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.3 Training - 29 CFR 1910.120(e)

Training is required for all employees who engage in hazardous waste field activities. These requirements include initial off-site health and safety training, supervised on-the-job training, and annual health and safety refresher training.

On-site managers or supervisors with direct responsibility for supervision of employees engaged in hazardous waste operations require

additional training. To determine field compliance with training requirements, the users should interview employees, request documentation from employees and/or their home office, and determine employee proficiency through observation and requests of employees to demonstrate proficiency.

4.3.1 Do all employees working on-site have documentation available to indicate initial health and safety training?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.2 Do all employees working on-site have documentation available which meets the on-the-job training requirements for 29 CFR 1910.120(e)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.3 Do all employees working on-site who had their initial health and safety training one year or more ago, have documentation available indicating completion of an eight hour annual health and safety refresher training course?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.4 Do on-site managers and supervisors who are directly responsible for supervision of employees engaged in hazardous waste operations have documentation of additional training relating to site operations?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.5 Can the employer show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that required of the employee by the standard?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.6 Have the employees working on-site been trained appropriately in safety, health, and other hazards present on the site?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.7 Have the employees working on-site received appropriate training in the use of PPE?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.8 Have the employees working on-site received appropriate training in medical surveillance requirements, including recognition of symptoms and signs that might indicate overexposure to hazards?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.9 Have the employees working on-site received training in the following elements of the site specific HASP?

4.3.9.1 Site control measures?

[YES] UNKNOWN [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.9.2 Decontamination procedures?

[YES] UNKNOWN [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.9.3 Emergency response plan?

[YES] UNKNOWN [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.9.4 Confined space entry procedures?

[YES] UNKNOWN [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.10 Are individuals who may be exposed to unique or special hazards provided with sufficient training beyond minimum training requirements to ensure their safety when performing such operations?

[YES] UNKNOWN [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.3.11 Do employees participating in field activities have an appropriate level of training to perform their job function and responsibility as indicated by an appropriate license or certification (e.g., license indicating proficiency on the forklift)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.3.12 _____

4.3.13 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.4 Medical Surveillance - 29 CFR 1910.120(f)

A medical monitoring program is essential to assess and monitor workers' health and fitness. In addition, OSHA recommends a medical evaluation for employees required to wear a respirator (29 CFR Part 1910.134[b][10]), and certain OSHA standards include specific medical requirements (e.g., 29 CFR Part 1910.95 and 29 CFR Parts 1910.1001 through 1910.1048). Members of hazardous materials' teams are also required to be enrolled in a medical monitoring program.

Medical examinations, provided without cost to the employee, must include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances and health hazards. Special emphasis should also be placed on fitness for duty, including the ability to wear any required PPE under conditions that may be expected at the work site (e.g., temperature extremes). The employer should obtain and furnish the employee with a copy of a written statement from the examining physician, documenting that the employee is qualified to work at hazardous waste sites and to wear respiratory protection equipment. All medical records should be maintained as confidential and made available to the employee or his designee upon written request.

4.4.1 Do the on-site employees participate in a medical monitoring program that meets the requirements of 29 CFR 1910.120(f)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.2 Do employees who wear respiratory protection at hazardous waste sites for 30 days or more per year or may be exposed to hazardous substances at or above OSHA-PELs or other published exposure limits have documentation available (in their home office or on the site) that indicates they have had baseline physicals and receive yearly physicals consistent with 29 CFR 1910.120(f)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.3 Are employees provided with medical reports from the attending physician in writing?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.4 Have employees received a verbal medical briefing regarding the results of their physicals?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.5 Are employee medical records available upon request?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.6 Have the employees working on-site been trained in medical surveillance requirements, including recognition of symptoms and signs that might indicate over-exposure to physical or chemical hazards [29 CFR 1910.120(e)]?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.7 Do employees who wear respiratory protection at hazardous waste sites less than 30 days per year have documentation available (in their home office or on the site) that certify that they are physically able to wear a respirator (i.e., 29 CFR 1910.134)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.4.8 _____

4.4.9 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.5 Engineering Controls, Work Practices, and Personal Protective Equipment For Employee Protection - 29 CFR 1910.120(g)

The following references cited in Appendix G of the Guidelines would be particularly helpful for evaluating compliance with the PPE provisions in the HASP:

> Personal Protective Equipment for Hazardous Material Incidents: A Selection Guide, 1984;
>
> Guidelines for the Selection of Personal Protective Equipment, 3rd Edition, 1987;
>
> Hazardous Waste Inspections Reference Manual, 1986; and
>
> Performance of Protective Clothing, 1986.

To determine if an employee is adequately trained in the use of PPE, on-site interviews should be conducted to ascertain the employee's familiarity with the PPE. It may also be appropriate to request that an employee demonstrate his/her knowledge of PPE by demonstrating its use in the Support Zone. (The employee should not be requested to demonstrate PPE knowledge in the Exclusion Zone, especially since the employee may have an inadequate understanding of the PPE in question.)

29 CFR 1910.120(g) requires establishment of a PPE program for hazardous waste operations that addresses:

- Site hazards;
- PPE selection;
- PPE use;
- Work mission duration;
- PPE maintenance and storage;
- PPE decontamination and disposal;
- PPE training and proper fitting;
- PPE donning and doffing procedures;
- PPE inspection procedures prior to, during, and after use;
- Evaluation of the effectiveness of the PPE program; and
- Limitations during temperature extremes, heat stress, and other medical considerations.

4.5.1 Personal Protective Equipment - General

Appendix D of the EPA Audit Guidelines provides guidance on appropriate PPE for EPA's Levels A, B, C, and D.

4.5.1.1 Is a written PPE program that meets the aforementioned 11 elements including procedures, guidelines, and policy statements regarding the use of PPE, available for inspection?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

If the answer is [NO], ask employee(s) these questions and/or observe for the 11 PPE program element questions below.

a. Are the employees trained regarding on-site hazards?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

b. Are the employees adequately trained in selection of PPE?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

c. Are the employees adequately trained in the use of PPE?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

d. Are the employees informed regarding estimated lengths of time for job tasks and estimated time of project duration?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

e. Do employees maintain and store PPE appropriately?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

f. Do employees know how to decontaminate and dispose of PPE properly?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

g. Are employees fitted properly for PPE?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

h. Do employees know how to don and doff PPE?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

i. Do employees know how to adequately inspect PPE (e.g., inspection of gloves, fully encapsulating suits, etc.) prior to, during, and after use?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

j. Is there a system in place to evaluate the effectiveness of the PPE program?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

k. Are employees knowledgeable about limitations on PPE related to temperature extremes, heat stress, and other appropriate medical considerations?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.1.2 Are employees at this specific site adequately trained in the use, maintenance, and storage of PPE?

[YES] [NO, EXPLAIN]

UNKNOWN

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.1.3 Is there sufficient PPE available for the personnel involved in the performance of site operations?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.5.1.4 Is health and safety instrumentation (e.g., FID, PID, air sampling pumps, radiation meters) maintained and calibrated on-site?

(YES) [NO, EXPLAIN]

TAT Equipment maintained.

Field Verification 1. _____ 2. _____ 3. _____

4.5.1.5 Is the PPE in place adequate for the chemical and physical hazards on-site?

[YES] (NO, EXPLAIN)

Personnel were not wearing the PPE outlined in the HASP.

Field Verification 1. _____ 2. _____ 3. _____

4.5.1.6 _____

4.5.1.7 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.5.2 Respiratory Protection

The following references cited in Appendix G of the EPA Audit Guidelines are particularly helpful for evaluating the respiratory protection provisions in the HASP:

Air Sampling Instruments, 1983;

Guide to Industrial Respiratory Protection, 1987;

Guide to Portable Instruments for Assessing Airborne Pollutants Arising from Hazardous Wastes, 1988;

Guidelines for the Selection of Personal Protective Equipment, 3rd Edition, 1987;

NIOSH/OSHA Pocket Guide to Chemical Hazards, 1985; and

Practical Guide to Respirator Use in Industry, 1985.

4.5.2.1 Is a written respiratory protection program that contains written standard operating procedures for selection and use of respirators (i.e., 29 CFR 1910.134) present and available for inspection on-site?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.5.2.2 Have all employees who are working on-site been fit-tested successfully for negative pressure respirators in accordance with 29 CFR 1910.134?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.5.2.3 Do employees who wear respiratory protection at hazardous waste sites have documentation available (at the home office or on the site) that indicates they have had baseline physicals and they receive yearly physicals consistent with 29 CFR 1910.120(f)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.5.2.4 _____

4.5.2.5 _____

_____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.5.3 PPE Physical Hazards

A new answer category [NOT APPLICABLE] was added to each of the questions in this section because oftentimes specific physical hazards will be unique to a site.

4.5.3.1 If there are overhead hazards (low hanging objects, overhead work) on-site, do employees wear hard hats in these work areas that meet the requirements of 29 CFR 1910.135?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.3.2 If 8-hour time weighted average noise measurements indicate that ambient noise levels may be greater than or equal to 85 dBA, are ear muffs or ear plugs worn by employees on-site as required by 29 CFR 1910.95?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

NOTE: 29 CFR 1910.95 requires the implementation of a hearing conservation program for employees if time weighted average noise levels equal or exceed 85 dBA.

4.5.3.3 If heat or cold stress is a concern on-site, are engineering and administrative controls (e.g., work/rest regimen) being properly considered to ensure that appropriate PPE can be worn by employees and still be protective for them?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

NOTE: PPE should always be sufficient to protect employees. Administrative controls should first be addressed as a means to minimize exposure to temperature extremes.

Field Verification 1. _____ 2. _____ 3. _____

4.5.3.4 If radiation (i.e., ionizing or non-ionizing) is a concern on-site, are engineering/administrative controls and/or PPE selection appropriate for the tasks at hand (e.g., use of radiation meters, use of UV goggles by welders)?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.3.5 If "hot work" such as welding or cutting is occurring on-site, the following questions apply:

a. Is appropriate combustible gas indicator (CGI) air monitoring being conducted?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

b. Is the employee wearing appropriate protective goggles and fire retardant clothing?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.3.6 If there are other unique physical hazards on-site (e.g., explosives, deep and/or rapidly moving water), is appropriate PPE being worn on-site to address such problems?

[YES] [NOT APPLICABLE] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.5.3.7 _____

_____

4.5.3.8 _____

_____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.6 Monitoring - 29 CFR 1910.120(h)

Two principal approaches are available for identifying and/or quantifying airborne contaminants:

- On-site use of real time instruments; and
- Laboratory analysis of air samples obtained by gas sampling bag, collection media (e.g., filter, sorbent), and/or wet-contaminant collection methods (e.g., impinger method or wet chemistry technique).

All instruments used on-site should be operated in accordance with accompanying equipment manuals. Many of the detector tubes have both positive and negative interferences that are specified in the accompanying literature for the respective detector tube.

Air sampling methods that use charcoal tubes, Tenax® tubes, silica gel tubes, and wet chemistry techniques (e.g., impinger methods) will often be necessary to assist in the identification of unknown contaminants.

It is important that users realize that there are many compounds for which there are no real time instruments capable of measuring contamination. As a result, it often is necessary to resort to air sampling with subsequent laboratory analyses. OSHA regulations require particular air sampling procedures, PPE requirements, and recordkeeping for a variety of compounds.

If information from the site characterization indicates a potential for ionizing radiation and/or IDLH conditions on-site or if insufficient information is available to demonstrate otherwise, then air monitoring shall include:

- Monitoring with direct readout instrumentation for ionizing radiation and/or IDLH conditions including toxic, explosive, combustible, and oxygen deficient atmospheres; and

- Visual observation for actual or potential IDLH conditions on-site.

If after site characterization there are indications that the site is safe for start-up operations, a regular air monitoring program must be adhered to during site operations.

4.6.1 .Is air monitoring being conducted to identify and quantify airborne levels of hazardous substances in order to determine the appropriate level of on-site employee protection?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.2 Is air monitoring being conducted to first identify Immediately Dangerous to Life or Health (IDLH) levels and other dangerous situations, such as the presence of flammable atmospheres, oxygen deficient environments, toxic levels of airborne contaminants, and radioactive materials?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.3 Is air monitoring being performed any time new work begins on a different portion of the site?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.4 Is air monitoring being performed any time that new contaminants are encountered that differ from those initially encountered?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.5 Is air monitoring being performed every time a different operation is initiated?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.6 Is air monitoring being performed whenever employees are working in an area with obvious liquid contamination (e.g., spill, lagoon, leaking drums)?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.6.7 Are the employees who are likely to have exposures above established OSHA-PELs participating in a personal air sampling program?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

NOTE: A representative sampling approach may be used as long as it is documented and the selection of employees and monitored chemicals are based on the criteria stated in 29 CFR 1910.120(h).

4.6.8 Are there maintenance and calibration logs on-site for the air monitoring equipment?

(YES) [NO, EXPLAIN]

TAT equipment logs were up to date.

If YES, are the calibration logs on-site up to date?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.6.9 _____

4.6.10 _____

_____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.7 Handling Drums and Containers - 29 CFR 1910.120(j)

If drums or containers are present on-site, appropriate and specific handling procedures must be established. Employees must be trained in the appropriate procedures for drum handling as well as the hazards associated with drum or container contents. During all drum or container operations (e.g., transfer operations, sampling operations), fire extinguishing equipment must be on hand. During clean-up procedures, drums and containers must meet appropriate DOT, OSHA, and EPA regulations.

4.7.1 Are drums and containers being used for the clean-up on-site?

[YES] [NO, EXPLAIN]

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

If [YES], do the drums meet appropriate DOT, OSHA, and EPA regulations for the wastes they contain?

[YES] [NO, EXPLAIN]

UNKNOWN

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.7.2 Are all drums and containers inspected for structural integrity before moving?

[YES] [NO, EXPLAIN]

UNKNOWN

_____

_____

Field Verification 1. _____ 2. _____ 3. _____

4.7.3 Are employees warned of the potential hazards associated with the contents of drums or containers prior to movement?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.4 Is there a potential for a major spill during transfer of drums or containers?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

If [YES], is there a spill containment program in place to contain and isolate the entire volume of the spill?

[YES] [NO, EXPLAIN]

UNKNOWN

4.7.5 Is a detection system being used to estimate location and depth of drums and containers on-site prior to excavation activities?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.7.6 Are drums or containers being handled on-site?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

If [YES], is a fire extinguisher on-site during any drum or container moving operation in the event of a fire?

yes.

Field Verification 1. _____ 2. _____ 3. _____

4.7.7 Does an instructional program for the employee detail procedures for drum or container opening operations on-site?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.7.1 Are only required personnel present during drum or container openings and are other personnel at a safe distance from the operation?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.7.2 Does an instructional program for the employees indicate either that drum openings will occur remotely with pressure relief or that an appropriate shield will be placed between employee and the drum container during opening?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.7.3 Are workers informed not to stand upon or work in proximity to drums (except when the task requires this)?

[YES] [NO, EXPLAIN]

UNKOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.8 Are sampling procedures for drums, tanks, containers, vaults, etc. appropriately documented and available to employees for review as part of a field sampling plan?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.7.9 _____

4.7.10 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.8 Decontamination - 29 CFR 1910.120(k)

All personnel and equipment should be properly decontaminated prior to leaving a site. The decontamination procedures shall be developed and communicated to employees. The decontamination procedure should, at a minimum, include the following:

- Number and location of decontamination stations;
- Required decontamination equipment;
- Appropriate decontamination methods;
- Procedures to prevent contamination of clean areas, employee contact, and equipment contact;
- Methods and procedures to minimize worker contact with contaminants during removal of PPE; and

- Methods for disposing of clothing and equipment that are not completely decontaminated.

Decontamination methods could involve: (1) physically removing contaminants; (2) neutralizing contaminants by chemical detoxification or disinfection; or (3) removing contaminants through a combination of both physical and chemical means. The types, locations, physical states, and concentrations of contamination present will determine the appropriate method of decontamination.

In general, for Level B and Level C activities, the initial decontamination steps in the Contamination Reduction Zone (CRZ) are performed by individuals who are one level of personal protection below those who are exiting from the exclusion zone. All decontamination workers are in a potentially contaminated area and must themselves be decontaminated before entering a clean zone.

4.8.1 Was the decontamination plan communicated to employees and implemented prior to any employee or equipment entering areas where potential exposure to hazardous substances exists?

[YES] [NO, EXPLAIN]

unknown

Field Verification 1. _____ 2. _____ 3. _____

4.8.2 Are standard operating procedures and good work practices being used to minimize employee contact with hazardous substances and with equipment that has contacted hazardous substances?

[YES] [NO, EXPLAIN]

Clean PPE was seen on top of waste drums.

Field Verification 1. _____ 2. _____ 3. _____

4.8.3 Are decontamination areas situated to minimize the potential for contamination of uncontaminated employees or equipment (i.e., is the CRZ located properly)?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.8.4 Are all employees, clothing, and equipment decontaminated properly prior to leaving a contaminated area?

(YES) but... [NO, EXPLAIN]

decon procedures are not being followed as written in HASP.

Field Verification 1. _____ 2. _____ 3. _____

4.8.5 Are all protective clothing and equipment decontaminated, cleaned, laundered, maintained, or replaced as needed to maintain effectiveness?

[YES] [NO, EXPLAIN]

unknown

Field Verification 1. _____ 2. _____ 3. _____

4.8.6 Do established equipment drop-off, decontamination, and protective clothing doffing procedures minimize employee exposures (i.e., is contaminated protective clothing being decontaminated prior to removal by the employee)?

[YES] (NO, EXPLAIN)

No equipment drop-off area.
Clothing not decon'ed prior to removal.

Field Verification 1. _____ 2. _____ 3. _____

4.8.7 Are all equipment and solvents used for decontamination disposed of or decontaminated properly?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.8.8 Where decontamination procedures indicate a need for showers and change rooms, are soap, hot and cold water, individual clean towels, and separate storage facilities for street and work clothes available as stated in 29 CFR 1910.141?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.8.9 Are unauthorized employees (e.g., administrative and support staff) denied access to decontamination areas, decontamination equipment, and change rooms?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.8.10 _____

4.8.11 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.9 Emergency Response - 29 CFR 1910.120(1)

At a minimum, the emergency response section of the HASP must include the following:

- Pre-emergency planning;
- Personnel roles, lines of authority and communication;
- Emergency recognition and prevention;
- Safe distances and places of refuge;
- Site security and control;
- Evacuation routes and procedures;
- Decontamination procedures that are not already covered elsewhere in the HASP;
- Emergency medical treatment and first aid;
- Emergency alerting and response procedures;
- Procedure for critique of response and follow-up;
- PPE and emergency equipment;
- Site topography, layout, and prevailing weather conditions; and
- Procedures for reporting incidents to local, state, and federal governmental agencies.

In general, the emergency response section should be a discrete section of the HASP and should be periodically reviewed in response to new or changing site conditions or information. The aforementioned elements of the emergency response plan should be verified by the EPA Audit Guidelines user in the field.

4.9.1 Are personnel roles, lines of authority, and communication among employees evident in the field (e.g., is the person who would be in charge during an emergency incident clearly identifiable?)

[YES] [NO, EXPLAIN]

The TAT representative was unaware of the emergency response procedures

Field Verification 1. _____ 2. _____ 3. _____

4.9.2 Are employees able to demonstrate emergency recognition and prevention?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.9.3 Are site security and control measures evident in the field?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.9.4 Are employees aware of evacuation routes and procedures?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.9.5 Are employees familiar with decontamination procedures?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.9.6 Are emergency medical treatment and first aid available to employees?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.9.7 Are emergency alerting and response procedures addressed in evidence in the field?

[YES] [NO, EXPLAIN]

A horn (apparently for emergency alerting) was found; but w/ no explanation.

Field Verification 1. _____ 2. _____ 3. _____

4.9.8 Is a procedure in place to enable field personnel to critique a response and to provide follow-up actions in the field?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.9.9 Are PPE and emergency equipment readily available to employees in the field?

[YES] [NO, EXPLAIN]

Decon shower wasn't operating.

Field Verification 1. _____ 2. _____ 3. _____

4.9.10 Are procedures in place for reporting emergencies to local, state, and federal governmental agencies?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.10. Illumination - 29 CFR 1910.120(m)

The provisions for illumination of hazardous waste operations are established in OSHA's industry requirements for illumination at construction sites, 29 CFR 1926.56. For general work areas, five foot candles is the recommended minimum illumination intensity for site work. If work may be performed in dimly lighted areas, the HASP should provide contingency measures for additional on-site lighting, along with a recommendation for the use of a light meter to determine illumination intensity.

4.10.1. If site work is anticipated in dimly lighted areas, is additional lighting provided?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.10.2 _____

4.10.3 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

4.11. Sanitation at Temporary Workplaces - 29 CFR 1910.120(n)

During the field verification for good health and safety practices on-site, the user should seek to answer the following questions pertaining to sanitary conditions on-site.

4.11.1 Is potable water labeled as safe for drinking?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.11.2 Are nonpotable water sources labeled as unfit for drinking, washing, and cooking purposes?

[YES] [NO, EXPLAIN]

UNKNOWN

Field Verification 1. _____ 2. _____ 3. _____

4.11.3 If there are fewer than 20 employees on-site, is there a minimum of one toilet available?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

NOTE: Mobile work crews with transportation readily available to equivalent toilet facilities are exempt from the requirements of this paragraph for sanitation facilities.

4.11.4 If there are greater than 20 employees on-site, have additional toilets and urinals been provided for each additional 40 employees?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.11.5 Is food handled in accordance with local food handling regulations?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.11.6 If temporary sleeping quarters are present, are they heated, ventilated, and lighted?

[YES] [NO, EXPLAIN]

N/A

Field Verification 1. _____ 2. _____ 3. _____

4.11.7 Are washing facilities away from hazardous substances and adequate to permit employees to remove hazardous substances from their bodies?

[YES] [NO, EXPLAIN]

Field Verification 1. _____ 2. _____ 3. _____

4.11.8 _____

4.11.9 _____

SUMMARY OF RESPONSES [YES]___ [NO, EXPLAIN]___

FIELD SITE SAFETY INSPECTION FORM

1. SITE NAME BAYONNE BARREL AND DRUM TDD.# 02-9407-05 (5007)

2. LOCATION NEWARK, NEW JERSEY INSPECTOR T. NOBLET, M. OENNO

DATE 1 AUGUST 94

CERTIFICATION OF PERSONNEL

1. All WESTON personnel on site are currently active on Certification List? X
2. Site Safety Officer and Site Supervisor are qualified? NI

LEGEND: X = YES
O = NO
NI = NOT INSPECTED

MEDICAL AND FIRST AID	X/O
1. First aid kits accessible & identified?	X
2. Emergency eye/safety washes available?	X/①
3. Daily first aid logs up to date?	NI
4. First aid kits inspected weekly?	NI
5. At least two first aid trained persons on site at all times when working?	O/②
SITE SAFETY/EMERGENCY PLANS	
1. Safety plan posted on site and given to each person?	X
2. Initial site safety plan meeting held and documented before work begins?	X
3. Hazardous materials information available for all hazards?	O/③
4. Designated, qualified site health and safety coordinator on site?	X
5. Employees trained in toxicology/ exposure risks?	X
6. Emergency telephone numbers posted?	X
7. Emergency routes designated?	X
8. Emergency plan and signal reviewed with all persons?	⑤

PERSONAL PROTECTION	X/O
1. All equipment meets ANSI/OSH/EPA criteria?	NI
2. Level of protection (LOP) established?	X
3. Site control zones clearly designated?	O
4. All employees know their LOP scheme?	O
5. OSHA respirator program in place?	NI
6. Employees FIT tested for respirators? ___ On site?___ FIT tests current?___	X/NI
7. Defective equipment tagged out?	NI
8. Breathing air Grade "D" certified?	X
9. Sufficient quantities of equipment?	NI
10. Safety instrumentation maintained and calibrated? ___ Maint. & Cal. logs up to date?	X/NI
COMMENTS	
① GENERATOR NOT ON THAT RUNS EMERGENCY SHOWER	
② NOT BRIEFED TO TAT REPRESENTATIVE	
③ HAZCAT MSDS'S NOT AVAILABLE	

④ TAT EMPLOYEES FIT TESTED; ERCS EMPLOYEES NOT CHECKED
⑤ TAT EQUIPMENT OK; ERCS EQUIPMENT NOT INSPECTED

100048

TRAINING	
1. Daily safety meetings? X Documented?	X
2. Question and answer time available to all site personnel?	NI
3. All employees instructed in hazardous materials handling practices?	NI
4. New personnel to site receive: Copy of safety plan? X Site orientation? __ Review of: LOP __, DECON __, Zones __site specific health and safety hazards?	O
FIRE PREVENTION/PROTECTION	
1. Hot work permits required?	O
2. Smoking restricted to designated area?	NI
3. Fire lanes established and maintained?	NI
4. Flammable/combustible liquid dispensing transfer systems grounded & bonded?	NI
5. Proper flammable materials storage?	NI
6. Fire alarm established, workers aware?	O
7. Location and use of fire extinguisher known by all personnel?	X
8. Fire extinguishers checked before each shift?___ Inspected monthly?	NI
9. fire extinguisher appropriate for fire hazard potential?	X
10. Combustible materials segregated from ignition sources?	X
SLINGS AND CHAINS	
1. Slings, chains, and rigging inspected per OSHA and documented?	/
2. Damaged slings, chains or rigging tagged out and reported?	/
3. Employees are instructed and keep clear of suspended loads?	/
COMMENTS	

DECONTAMINATION	
1. Decon system set up on site? X Used? X According to safety plan?	O
2. Contamination zone and corridor clearly delineated?	O
3. Appropriate waste receptacles available for all waste?	X
4. Receptacles properly closed at end of day?	NI
5. All decon liquids properly contained and disposed of?	NI
6. All wastes disposed of according to approved plan?	NI
7. All personnel received decon training?	NI
8. All reusable personal protective gear deconned and disinfected at least daily?	NI
WALKING AND WORKING SURFACES	
1. Accessways, stairs, ramps and ladders free of ice, mud, snow, or debris.	/
2. Ladders exceed maximum length?	/
3. Ladders used in passageways, doors, or driveways?	/
4. Broken or damaged ladders tagged out?	/
5. Metal ladders prohibited in electrical service?	/
6. Safety feet on straight and extension ladders?	/
7. Stairways, floor and wall openings guarded?	/
8. Elevated work areas guardrailed or safety chained?	/
9. Floatation devices worn when working on or over water?	/
10. Toe boards on overhead work surfaces?	/
11. Mobile offices/labs have fixed stairs and handrails?	X
12. Work areas kept free of debris and equipment?	X
COMMENTS	

EXCAVATIONS, CONFINED SPACES, TUNNELS	
1. Excavations sloped or shored to prevent cave-ins?	
2. Shoring approved by Engineer?	
3. Guardrails or fences placed around excavations near walkways or roads.	
4. Excavation locations visible at night?	
5. Utility check performed and documented before excavation or drilling?	
6. Ladders available in trenches more than 4 feet deep and at a minimum, 25' intervals along a fence?	
7. Excavated material is at least 24" from the edge of all trenches?	
8. Confined space entry permit procedure in place and communicated to all?	
9. Employee training includes CSE hazards?	
10. Tunnels are adequately ventilated?	
11. There is proper lighting?	
12. Tunnel tested for O2__, CO__, CGI Tox?	
13. Communication available inside to out?	
14. No flammables or combustibles in tunnel?	
15. CSE procedures used for tunnel?	
16. CSE procedure checklist: Safety Watch? Safety watch protected same as enterers? Safety line?___ Appropriate harness? Continuous monitoring for 02, CGI & Tox Level B or constant ventilation and monitoring?	
17. Work does not begin inside any tank vessel or other container until here is no possibility lines or electrical or equipment could be activated? Lines are discontinued or blanked out fuses are pulled?	
COMMENTS	

MOTOR VEHICLE/HEAVY EQUIPMENT	
1. Inspected before each use?	
2. Operators licensed for equipment used?	
3. Unsafe equipment tagged out and reported?	
4. All safety appliances/guards in place?	
5. Shut down for fueling?	
6. Equipment with back-up alarms or spotter used if 360 percent visibility restricted?	
7. Loads are secure before transport?	
8. Roads and structures inspected for load capacity per vehicle weights?	
9. Riders prohibited on heavy equipment?	
ELECTRICAL	
1. Warning signs indicated high voltage, 250V or greater, present and location?	
2. Electrical equipment and wiring properly guarded?	
3. Electrical lines, extension cords and cables guarded and properly maintained?	
4. Extension cords kept out of wet?	
5. Damaged equipment tagged out?	
6. Underground electrical lines located and indicated?	
7. Overhead electrical lines de-energized or elevated work platforms, work areas, booms or ladders erected so no contact can occur with electrical lines?	
8. A positive electrical lock-out system is used whenever work is done on or in electric equipment or electrically activated equipment?	
COMMENTS	

WELDING AND CUTTING	
1. Fire extinguishers present at all welding and cutting operations?	
2. Confined spaces, tanks, pipelines tested before welding or cutting?	
3. Hot work permitting system in use?	
4. Proper helmets and shields (including proper tint for UV protection) used?	
5. Properly grounded?	
6. Fuel gas and 02 gas cylinders stored at least 20' apart? ___ Stored upright and secured?	
7. Only trained welders permitted?	
MISCELLANEOUS	
1. Tools and other equipment (portable) are stored away from walkways, roads or driveways where they cannot fall on or be fallen over by site personnel?	X
2. Overhead hazards are noted, communicated to all and labelled as needed?	/
3. Hard hats, eye, hearing and protection areas are defined and signs in place?	X
4. Hard hat, eyes and head protection is used where appropriate?	O
5. Signs or labels (as shown on the attachment) are in place or appropriate training received?	/
6. Copies of contracts with client and subcontractors are onsite, WESTON's role regarding site health and safety responsibilities are clear in these and in the minds of the site manager(s)?	/
7. Subcontractors have received approved copies of their safety plan or have signified their intent to conform with WESTON's safety plan? ___ This intent has been signed by all site personnel and a subcontractor company officer?	/
8. Site managers understand their responsibilities for subcontractors' conformance with all OSHA and other health and safety requirements?	/
9. Site managers know what to do in the event of an OSHA inspection?	/

COMPRESSED GAS CYLINDERS/PRESSURIZED LINES	
1. Breathing air cylinders charged only to prescribed pressure?	X
2. No other gas system can be mistaken for breathing air? X Fittings prohibit cross connection?	X
3. Cylinders segregated appropriately in controlled, protected but well ventilated areas?	X
4. Smoking prohibited in storage areas? ___ Signs so stipulating this are in place.	NI
5. Cylinders stored upright and secure?	X
6. Cylinder caps in place when stored (not in use) or when cylinders moved?	X
7. Fuel gas and 02 minimum 20' apart when stored?	/
8. Pressurized air or waterlines are securely connected?	O
9. All site personnel know never to step across a pressurized line?	NI
10. Gas or other hazardous lines are labelled appropriately?	/
COMMENTS	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: JAN 27 1992

SUBJE Removal Site Evaluation for the Bayonne Barrel and Drum Site, Newark, New Jersey

FROM: Nick Magriples, On-Scene Coordinator
Technical Support Section

TO: File

I. INTRODUCTION

On September 30, 1991, the United States Environmental Protection Agency (EPA), Removal Action Branch, received a request from the State of New Jersey Department of Environmental Protection and Energy (NJDEPE) to evaluate the Bayonne Barrel and Drum Site for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Removal Action consideration.

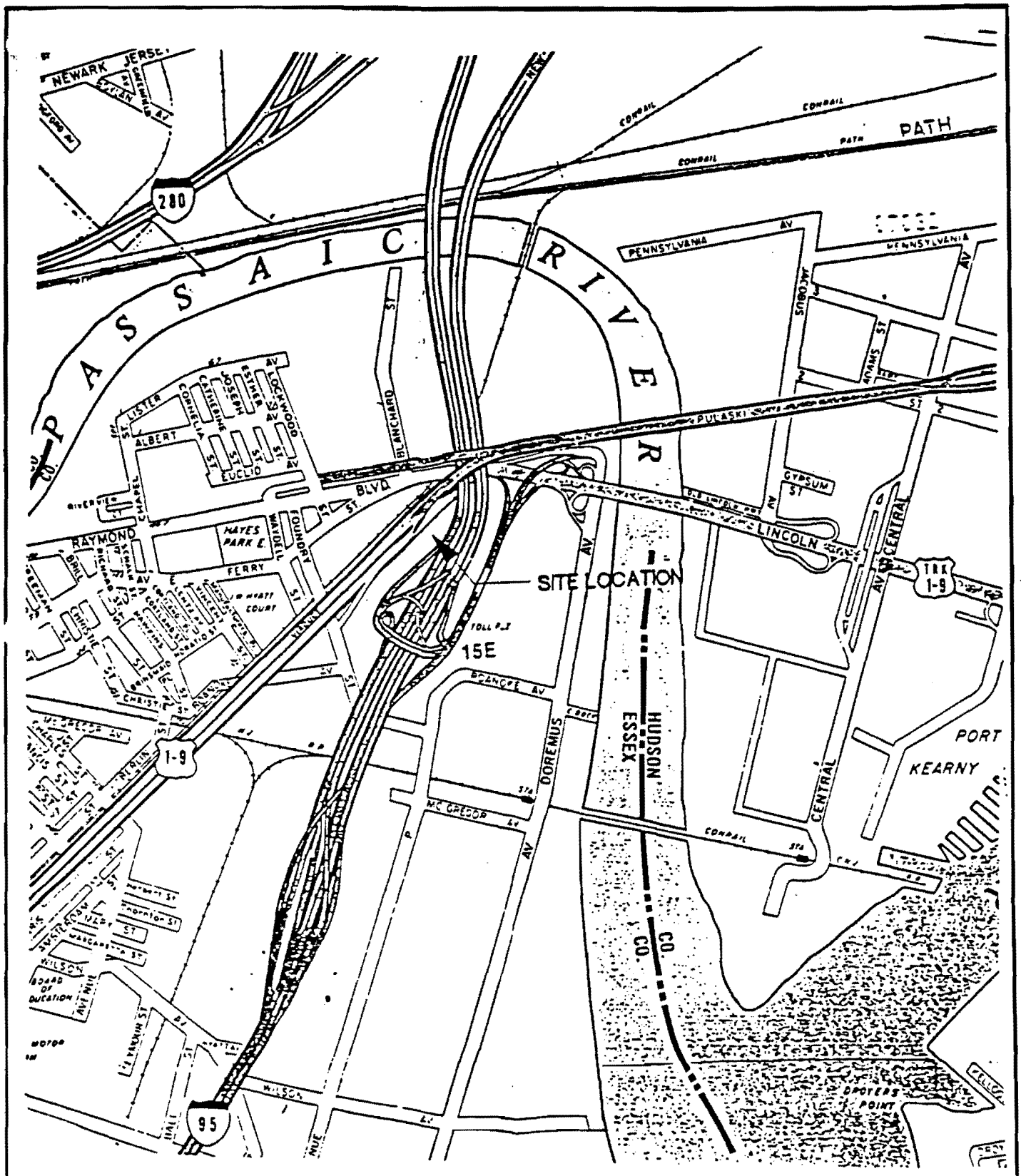
There has been a release to the environment of CERCLA hazardous substances at Bayonne Barrel and Drum. An Agency of Toxic Substances and Disease Registry (ATSDR) Health Consultation has stated that current conditions at the site pose a potential public health threat to persons on the site via direct contact. However, the materials present at the site do not appear to pose a significant threat to potential off-site targets. Current negotiations for the sale of the property would result in a cleanup as part of the transaction. The NJDEPE would, in that case, be able to oversee those activities under an administrative order. Should this transaction not take place, a CERCLA Removal Action would be warranted to stabilize the site since there would be no other mechanism available to address the potential threats.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Physical location

Bayonne Barrel and Drum (BBD) is located at 150-154 Raymond Boulevard in Newark, Essex County, New Jersey. BBD occupies approximately 15 acres of Block 5002, Lots 3 and 14. The site, formerly the location of a drum reconditioning facility, is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west, an entrance ramp to the New Jersey Turnpike to the east and south, and the parking lot of a movie theater to the south west (see Figure 1). The nearest residential area to the site is approximately one-half mile away.



WESTON	Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	Site Locator
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES		TAT PM V. Vicenty	Figure 1

100053

2. Site characteristics

BBD operated as an unlicensed TSD facility from the early 1940s until the early 1980s when the company filed for bankruptcy under Chapter 11.

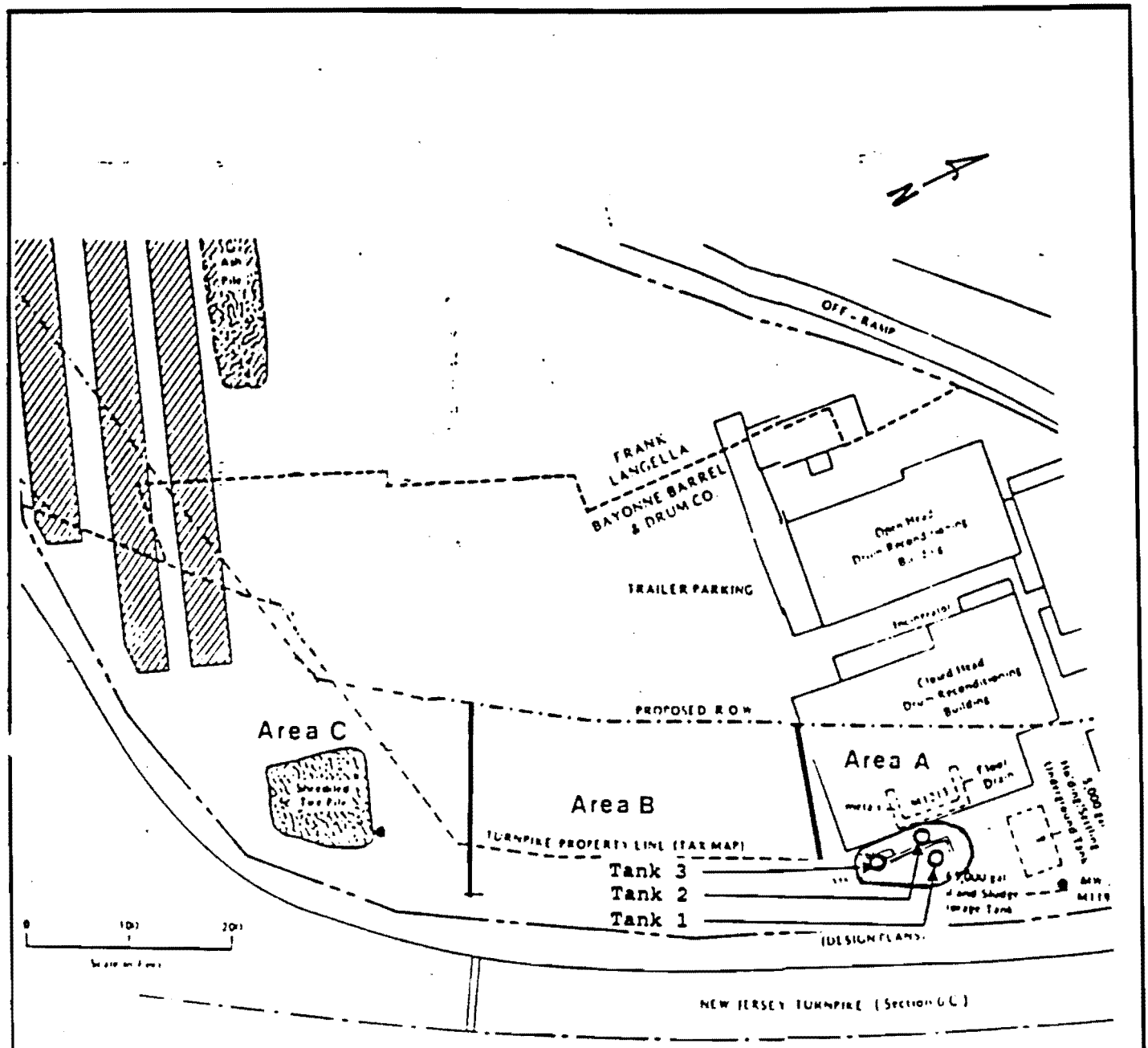
According to an EPA Environmental Services Division report from when the facility was operating, drum cleaning operations involved both closed head and open head drums. In closed head cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon underground holding/settling tank and was then pumped into a 60,000 gallon aboveground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open head drums were placed on a conveyor belt and moved through the incinerator which burned residue out of the inside. This residue material was collected in two subsurface holding/settling tanks adjacent to the incinerator. Approximately 40,000 pounds of incinerator ash and sludge were reportedly generated monthly.

Currently, all of the original buildings which existed during the facility's operations remain standing. There are three vertical storage tanks, underground storage tanks, ash piles (approximately 1,600 cubic yards), shredded tires, 300-350 drums and an ash pile in one of the buildings, and 45,000 RCRA empty drums in the field, several of which contain materials (see Figure 2).

3. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

An NJDEPE site inspection report dated March 3, 1982 indicated the presence of an ash pile at that time. Samples collected from the pile were found to be ignitable. Additionally, halogenated organic compounds were detected in the pile and its leachate at 3,450 ppm and 2,579 ppm, respectively. In 1985, samples collected by a consultant from the courtyard, near the incinerator feed, indicated petroleum hydrocarbons (16,300 ppm) and PCBs (320 ppm) at a depth of one foot. Except for lower values of PCBs, similar values were detected at the output end of the incinerator. Dioxin was not detected at 0.32 ppb. Samples were also collected from the wastewater treatment area which indicated petroleum hydrocarbons, ranging from 5,920 ppm to 59,000 ppm, from the surface to near ground water.

On February 17, 1984, EPA conducted a RCRA sampling inspection at the site. Analysis of samples collected from the ash piles at the rear of the facility and in the courtyard near the incinerator revealed the following maximum concentrations:



WESTON	Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	Tanks Locator
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES		TAT PM V. Vicenty	Figure 2

100055

Contaminant	Highest Concentration Detected (mg/kg)
1,1,1-trichloroethane	7
1,1-dichloroethane	0.5
1,1,2-trichloroethane	5
ethyl benzene	65
methylene chloride	10
tetrachloroethylene	2.6
toluene	320
trichloroethylene	8.1
vinyl chloride	1.6
arochlor 1248	67.2
arochlor 1254	117.5
cadmium	160
chromium	3,300
copper	2,900
lead	21,000
mercury	12
zinc	3,800

EPA RCRA 1984

ASH PILES

mg/kg = milligrams per kilogram

Additionally the ash was found to be E.P. Toxic for lead.

On June 2, 1988, EPA conducted another RCRA inspection at the site. Samples collected from the ash piles, in general, revealed similar results to those presented above. Additionally, the ash was found to be E.P. Toxic for cadmium. PCBs were detected at 293 mg/kg. Analysis of a sample collected from a drum containing liquid (stored in the drum and ash storage building) was found to contain the following concentrations:

Contaminant	Highest Concentration Detected (mg/l)
benzene	92
chlorobenzene	78
ethyl benzene	1,200
tetrachloroethylene	62
xylene	10,000
toluene	2,400
1,3-dichlorobenzene	2.6
1,4-dichlorobenzene	34.2
1,2 dichlorobenzene	167
naphthalene	28.3

DRUM

mg/l = milligrams per liter

All of the materials listed above, except for petroleum hydrocarbons, are CERCLA designated Hazardous Substances, as listed in 40 CFR Table 302.4. The analytical data presented above is a summary of the most significant data available from the aforementioned reports.

The mechanism for past releases at the site appears to have been spills, poor housekeeping practices, illegal disposal practices and unpermitted wastewater discharges. Past practices of concern at these facilities have included; disposal of chemicals directly to the ground, improper drum storage and incineration of

hazardous wastes including chlorinated hydrocarbons. The mechanism for future releases to the soil and air include deterioration and/or improper disturbance of the containers present at the site. Contaminants from the soil and ash piles could become airborne if disturbed.

4. Site assessment activities/observations

The following EPA personnel were directly involved in the Removal Assessment conducted for the Bayonne Barrel and Drum Site: Nick Magriples (908-906-6930) and Robert Montgomery (908-906-6934) of the Technical Support Section, Edison, New Jersey.

The Technical Support Section conducted site visits on October 29th and November 7th, 13th and 19th in order to assess the magnitude of the situation.

On November 13, 1991 the OSC, TAT and representatives from the EPA Environmental Services Division (ESD) inspected the three aboveground tanks at the site in order to determine if they contained any materials. Table 1 lists the tanks, their dimensions, any distinguishing features and the volume of material present. Tank 3 contained an amber colored petroleum product. Upon hazcatting, it was found to be combustible. An HNU reading of 80 units was detected from the sample.

The volume of ash material and the number of drums containing material that was noted in previous reports were verified. Most of the drums in the building appear to contain ash. Of the drums in the field, approximately 12 appear to contain some material, mostly less than one-third of a drum.

TABLE 1

	Height (ft)	Diameter (ft)	Volume (gal)	Color
Tank 1	26	8	empty	brown
Tank 2	54	12	empty	white/yellow
Tank 3	23	11	1,140	white

On November 19th, the OSC and TAT collected two composite samples of the ash from the building and the courtyard near the incinerator. The samples were sent to a private laboratory for dioxin and furan analysis. Analytical results revealed 94 parts per trillion (ppt) of 2,3,7,8-TCDD in one sample and a toxicity equivalent factor (TEF) of 973 ppt in the other sample. The TEF is a weighted, total concentration taken from the various dioxin and furan isomers, relative to 2,3,7,8-TCDD.

Air monitoring conducted in the abandoned buildings, the area of the incinerator, the field near the stacked drums and at random spots on the property did not detect anything above background levels, except as noted above.

5. NPL status

BBD is not a National Priorities List (NPL) site.

Although ATSDR has not conducted a full health assessment for the site, they have provided a health consultation for the Removal Program in order to determine if contaminants detected on-site are a public health concern (see Section III).

B. Other Actions to Date

1. Previous actions

There have been no other previous Federal actions taken at the site.

2. Current actions

Currently, there are no Federal actions taking place at the site.

C. State and Local Authorities' Role

1. State and local actions to date

The NJDEPE sent a letter to the Emergency and Remedial Response Division (ERRD) requesting that EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials at the site.

Until recently, the site had been handled as a developer site under an Administrative Consent Order (ACO). However, the developers decided that it was not feasible to develop the site and subsequently declined to initiate the removal.

2. Potential for continued state/local response

Other than discussed above, there are no other State/local actions taking place at the site. Should the sale of the property take place, the NJDEPE would take responsibility of the site as previously planned.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to the Public Health or Welfare

The main threats present at BBD are exposure through direct human contact with the ash piles, the contents of the drums and the soils. The threat of a potential fire exists, but to a lesser extent, due to vandalism, based on the concentrations of organic solvents detected in one of the drums stored within the building. Although a fence surrounds BBD, there are holes cut in several areas that allow for access to the site. Additionally, the portion of the fence that runs along the New Jersey Turnpike entrance ramp is only four feet high.

A November 27, 1991 Health Consultation conducted by ATSDR stated that current conditions at the site do not pose a threat to potential off-site targets. However, there is a potential chronic threat to persons on the site that come into direct contact or disturb the ash or contaminated soils, due to the synergistic effects of the different types of materials present at the site.

B. Threats to the Environment

Hazardous substances are present in the soils and the ground water beneath BBD. Due to the industrial setting that BBD is located in, there does not appear to be a threat to sensitive ecosystems or an exposure to hazardous substances by nearby animals and the food chain. The ground water in the general area is not used for drinking water purposes.

IV. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action to remove the hazardous substances present at the surface (drums, ash piles and soil) of the site will increase the potential for a fire and/or explosion due to arson and incidental trespassing. Although most of the site is fenced, there are access points available along the exit ramp for Routes 1 and 9, and the entrance ramp for the New Jersey Turnpike.

V. ENFORCEMENT

In 1984, the EPA issued a Consent Agreement and Consent Order to BBD for operating a TSD facility without the required permits. The United States Department of Justice (USDOJ) filed suit against BBD in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 EPA consent order. A RCRA closure plan for the site was submitted to the NJDEPE on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and receiving owners of BBD.

BBD went into bankruptcy, under Chapter 11, sometime in the early 1980s. The principle owner of the property, Frank Langella, died on April 13, 1991.

In 1989, the USDOJ ordered BBD to remove the hazardous materials present at the site, starting with the PCB contaminated waste piles. Some effort was recently made to remove the waste piles, but the effort was abandoned upon the death of Mr. Langella.

At this time it is believed that the mortgage is being held by Mr. Phil Pearlman, a Chicago based developer, who bought the BBD mortgage from First Fidelity Bank as a favor to his friend, Frank Langella.

Mr. Milton Raff, a New Jersey real estate agent handling the BBD property for Mr. Pearlman, has leased portions of the site in the past to reportedly provide funding for the guard and the environmental consultants maintained for the site. Currently, a portion of the site is being leased to a chemical trucking firm for parking of empty tankers.

VI. CONCLUSIONS

There has been a release to the environment of CERCLA hazardous substances at BBD. A potential threat of direct contact with exposed and contaminated ash piles and soil exists to persons entering the site. Access to the site is available. The types of materials present pose a chronic threat.

Negotiations between the lien-holder of the property and a prospective buyer are currently on-going. Should the property transaction take place, the DEPE will retain oversight of any cleanup actions that take place under an administrative order. Should there be no transaction, it appears that there would no longer be any party available to take timely and appropriate actions. In the latter case, a CERCLA Removal Action would be warranted to stabilize the site.

VII. RECOMMENDATIONS

A CERCLA Removal Action is recommended for Bayonne Barrel and Drum, should negotiations fail to result in a timely and appropriate cleanup. In this case, the areas of concern would be the ash piles, the contaminated soil near the incinerator, the drums and any materials remaining in the tanks.

US ENVIRONMENTAL AGENCY, REGION II

PROGRESS POLLUTION REPORT

I. HEADING

Date: August 10, 1994
From: Joe Cosentino, OSC Joseph Cosentino 8-10-94

To: W. Muszynski, EPA
K. Callahan, EPA
J. Marshall, EPA
W. Mugdan, EPA
J. McVeigh, EPA
M. Seidenberg, EPA
J. Frisco, EPA
G. Pavlou, EPA
R. Salkie, EPA
G. Zachos, EPA
J. Witzowski, EPA
K. Delaney, NJDEP
D. Triggs, NJDEP
TAT

Subject: Bayonne Barrel and Drum. Newark, Essex County, New Jersey

POLREP No: Three (3), Progress POLREP

II. BACKGROUND

Site Number: 9J
Response Authority: CERCLA
Delivery Order Number: 2001-02-039
NPL Status: Non-NPL
Action Memorandum Status: verbal authorization granted on July 14, 1994, Action Memo (final) signed by OSC August 9, 1994
Start Date: July 14, 1994

III. INCIDENT INFORMATION

See initial POLREP

IV. REMOVAL INFORMATION

A. Actions Taken

1. ERCS completed the removal and stabilization of the drums in building number 2. A total of 357 drums were removed from the building, sampled, their labels and marking documented (if any),

overpacked, marked and staged. A sweep of the remaining building for additional drums was conducted and several drums containing material recovered. In addition, ERCS began the removal of non-RCRA empty drums from the "empty" drum storage area.

Because the site has a documented history of PCB contamination, a composite matrix screening for PCBs has been established and initiated. If successful the cost of PCB analysis will be reduced by an estimated 40%. Data received from the first round of samples indicate that the required detection limit of 2 ppm could not be achieved due to the matrix interferences displayed by the wastes. Alternative analytical methodologies were discuss and approved by the OCS.

2. Concerns over high particulate levels within the work zone, indicated by particulate field screening instruments (mini-ram), a real time air sampling program was initiated and samples collected were analyzed for total fibers, PCBs, lead and cadmium. The Results do not indicate any levels in excess of regulatory concern or permissible exposure limits (PEL).

3. Efforts to determine the present and legal owner/owners of the property are being made by ORC and the Program Support Branch. A title search has been completed.

B. Next Steps

Contingent upon the approval of the action memorandum activities to secure and stabilize the site will continue. These activities will include the collection of drummed material, the removal of material in the tanks, stabilization of the ash piles, repair of the fence and addition of gates.

A community relations plan and administrative record are presently being drafted and will be available shortly.

C. Key Issues

The ERCS and TAT contractors and equipment will be demobed until addition funding is approved. Site security will be maintained until the funds remaining are depleted.

V. COST INFORMATION

Mitigation Contracting	$130,815
TAT	$8,345
Intramural	$5,500
Total	$144,660
Project ceiling	$200,000

US ENVIRONMENTAL AGENCY, REGION II
PROGRESS POLLUTION REPORT

I. HEADING

DATE: August 4, 1994
FROM: Joe Cosentino, OSC Joseph Cosentino
TO: W. Muszynski, EPA
K. Callahan, EPA
J. Marshall, EPA
W. Mugdan, EPA
J. McVeigh, EPA
M. Seidenberg, EPA
J. Frisco, EPA
G. Pavlou, EPA
R. Salkie, EPA
G. Zachos, EPA
J. Witzowski, EPA
K. Delaney, NJDEP
D. Triggs, NJDEP
TAT

SUBJECT: Bayonne Barrel and Drum. Newark, Essex County, New Jersey

POLREP No: Two (2), Progress POLREP

II. BACKGROUND

Site Number: 9J
Response Authority: CERCLA
Delivery Order Number: 2001-02-039
NPL Status: Non-NPL
Action Memorandum Status: verbal authorization granted on July 14, 1994, draft Action Memo was submitted on July 26, 1994
Start Date: July 14, 1994

III. INCIDENT INFORMATION

See initial POLREP

IV. REMOVAL INFORMATION

A. Actions Taken

1. ERCS continued to work on the removal and stabilization of the drums in building number 2. To date 228 drums have been removed from the building, sampled, their labels and marking documented (if any), overpacked, marked and staged. Field analysis (hazcatting) indicates the presence of organics, corrosives, oxidizers and ignitables.

Because the site has a documented history of PCB contamination, a composite matrix screening for PCBs has been established and initiated. If successful the cost of PCB analysis will be reduced by an estimated 40%.

2. Health and Safety Audits were conducted by both TAT and ERCS personnel.

3. Efforts to determine the present and legal owner/owners of the property are being made by ORC and the Program Support Branch.

B. Next Steps

Activities to secure and stabilize the site will continue. These activities will include the collection of drummed material, the removal of material in the tanks, stabilization of the ash piles, repair of the fence and addition of gates and maintaining 24 hour site security.

A community relations plan and administrative record are presently being drafted and will be available shortly.

C. Key Issues

Due to the deteriorated condition of the drums and leakage onto the building floor the collection of drums from building number 2 has been slowed. Measures to control and collect leaked material have been instituted.

Above average temperatures and humidity has required the institution of a heat stress monitoring program and frequent breaks for the crew. This has significantly slowed response activities.

V. COST INFORMATION

Mitigation Contracting	$91,815
TAT	$6,200
Intramural	$4,500
Total	$102,515
Project ceiling	$200,000
Percent of Funds Remaining	49%

US ENVIRONMENTAL AGENCY, REGION II

INITIAL POLLUTION REPORT

I. HEADING

Date: July 26, 1994
From: Joseph Cosentino, OSC

To: J. Fox, EPA
W. Muszynski, EPA
K. Callahan, EPA
J. Marshall, EPA
W. Mugdan, EPA
J. McVeigh, EPA
M. Seidenberg, EPA
J. Frisco, EPA
G. Pavlou, EPA
R. Salkie, EPA
G. Zachos, EPA
J. Witzowski, EPA
K. Delaney, NJDEP
D. Triggs, NJDEP
TAT

Subject: Bayonne Barrel and Drum. Newark, Essex County, New Jersey

POLREP No: One (1), Initial Polrep

II. BACKGROUND

Response Authority: CERCLA
NPL Status: Non-NPL
Site Number: 9J
Action Memorandum Status: Verbal Authorization granted on 7-14-94
Start Date: 7-14-94

III. INCIDENT INFORMATION

On July 14, 1994, OSCs, Joseph Cosentino, Nick Magriples and Bob Montgomery conducted a site visit. A fire had recently occurred at the facility. Discussions with the Newark Fire Department revealed that the fire had occurred in the former office building of Bayonne Barrel and Drum on July 8, 1994. The fire, believed to have been started by vagrants, destroyed several building near the entrance to the site but did not appear to impact any areas known to contain waste.

There were no security guards present at the facility and

the site accessible through openings in the fence. A scavenger was observed sifting through debris and rubble for scrap metal. The main gate, noted to be closed with a lock and chain upon arrival, was subsequently opened by the scavenger. An empty box trailer found in one of the buildings was determined to be stolen and reported to the Newark Police department.

The drums and ash previously contained in a building were accessible and exposed due to the collapse of a makeshift plywood wall. The ash pile is uncovered and the drums appear to be in very poor condition. There are an estimated 200 to 250 drums located within this building (designated as building No. 2).

The area near the incinerator, known to be contaminated with organics, PCBs and heavy metals, was flooded and appears to have been accessed by a heavy vehicle.

One of the above ground storage tanks, known to contain an estimated 1,400 gallons of a liquid substance, appears to be of poor structural integrity. Several areas around and near the tanks, including the opening of an under ground storage tank, appear to be heavily stained.

The tire piles on site have increased substantially over the last couple of years. There are numerous piles of what appears to be a mixture of soil and construction debris on the site.

Between the piles of "empty" drums located at the rear of the facility several drums containing a dark oil-like substance were found. These drums appear to be in fairly good condition. However, due to the removal of their bungs and the infiltration of rainwater and/or pressurization due to elevated ambient temperatures have leaked a substantial portion of their contents onto the ground surface.

IV. REMOVAL INFORMATION

A. Actions Taken

1. On July 14, 1994, a verbal funding authorization was received from Kathleen Callahan, Director of the Emergency and Remedial Response Division, to conduct the emergency response activities necessary to stabilize and remediate the threats to human health and the environment present at the Bayonne Barrel and Drum Site. A total project ceiling of $200,000 with a mitigation ceiling of $150,000 was authorized.

2. An Emergency Response Clean-up Services (ERCS)

contractor was immediately activated and site security (24 hour guard) established.
3. On July 15, 1994, the OSC and ERCS met on site to discuss the anticipated tasks and logistics of the response. A site specific Work Plan and Health and Safety Plan were requested.

4. On July 18, 1994, equipment and manpower were mobilized to the site and site preparation began. The primary activities were to establish an office trailer, obtain electric and telephone service, establish a decon area and laboratory trailer and clear the debris from along eastern boundary of the site to facilitate the movement of equipment and manpower.

In addition, a Detective from the Newark Police Department's Major Crimes Bureau assisted the OSC with having the owner/operator repair and remove the stolen box trailer.

5. On July 20, 1994, ERCS began removing drums from building No. 2 to building No. 1 where they were remotely punched, sampled, overpacked, marked and staged. To date, 90 drums have been removed from the building. It appears that many of the drums have leaked as evidenced by numerous stains and the pooling of material on the floor of the building. Several drums were found to be empty. Field hazcatting results indicated the presence of chlorinated organics, non chlorinated organics, flammable liquids, oxidizers and fuming acids.

6. Several local, state and federal law enforcement agencies have contacted the OSC concerning the site and EPA's activities.

B. Next Steps

Activities to stabilize the site will continue. These activities will include maintaining 24 hour security, repairing of the fence and addition of gates, the stabilization of the ash piles, the continued collection of drummed material and removal of material in the tanks.

WESTON MAJOR PROGRAMS DIVISION
HEALTH AND SAFETY PLAN
EMERGENCY RESPONSE / SITE INVESTIGATION

TDD No. 9207-03 **Site Name:** Bayonne Barrel & Drum

Site Address: Street No. US Highway No. 1 & Raymond Blvd.

City Newark

County/State Essex County, NJ

Site Contact / Phone No.:

Directions to Site:(Att.Map) NJ Turnpike North to exit 15E to Rt 139 North. Exit onto Raymond Blvd (before Pulaski Skyway) bear to the right and make an immediate right turn onto the facilities parking lot.

Historical/Current Site Information:

The site is a former drum reconditioning facility. There are over 40,000 drums 3 above ground storage tanks, and mounds/piles of ash material stored in a building.

Incident Type:

( ) Air Release -

( ) Spill -

( ) Fire -

(X) HW Site -

Location Class : (X) Industrial ( ) Commercial ( ) Urban/Residential ( ) Rural

USEPA Contact: Nick Magniples **Date of Initial Site Activities:** 11/7/91

Original HASP: Yes ____ **Modification Number:** 2

Lead TAT: V. Vreeland **Site Health & Safety Coordinator:** N Magnipples

Response Activities/Duration (fill in as applicable)

Emergency Response:	( ) Perimeter Recon.	
	( ) Site Entry	
	( ) Visual Documentation:	
	( ) Multi-media Sampling:	
	( ) Decontamination:	
Assessment:	(X) Perimeter Recon.	
	(X) Site Entry	
	(X) Visual Documentation:	
	(X) Multi-media Sampling:	
	( ) Decontamination:	

100068

Physical Safety Hazards to Personnel

(X) Heat ( ) Cold (X) Precipitation ( ) Confined Space ( ) Terrain
(X) Walking/Working Surfaces ( ) Fire & Explosion ( ) Oxygen Deficiency
( ) Underground Utilities ( ) Overhead Utilities ( ) Heavy Equipment
(X) Unknowns in Drums, Tanks, Containers ( ) Ponds, Lagoons, Impoundments
( ) Rivers, Streams ( ) Pressurized Containers, Systems ( ) Noise
( ) Illumination ( ) Nonionizing Radiation ( ) Ionizing Radiation

Biological Hazards to Personnel None known

( ) Infectious/Medical/Hospital Waste ( ) Non-domesticated Animals ( ) Insects
( ) Poisonous Plants/Vegetation ( ) Raw Sewage

Training Requirements

(X) 40 Hour General Site Worker Course with three days supervised experience.
( ) 24 Hour Course for limited, specific tasks with one day supervised experience.
( ) 24 Hour Course for Level D Site with one day supervised experience.
(X) 8 Hour Annual Refresher Health and Safety Training.
( ) 8 Hour Management/Supervisor Training in addition to basic training course.
( ) Site Specific Health and Safety Training.
( ) Pre-entry training for emergency response skilled support personnel.

Medical Surveillance Requirements

(X) Baseline initial physical examination with physician certification.
(X) Annual medical examination with physician certification.
(X) Site Specific medical monitoring protocol (Radiation, Pesticide, PCB, Metals).
( ) Asbestos Worker medical protocol.
( ) Exempt from medical surveillance:_____.
(X) Examination required in event of chemical exposure or trauma.

SITE SAFETY PLAN AMENDMENT # 2:

SITE NAME: Bayonne Barrel

DATE: 7-13-92

TYPE OF AMENDMENT: Include Drum Sampling

REASON FOR AMENDMENT: Drums containing material were brought to the site by the PRP

ALTERNATE SAFEGUARD PROCEDURES:

REQUIRED CHANGES IN PPE: All sampling activities will require Level B PPE

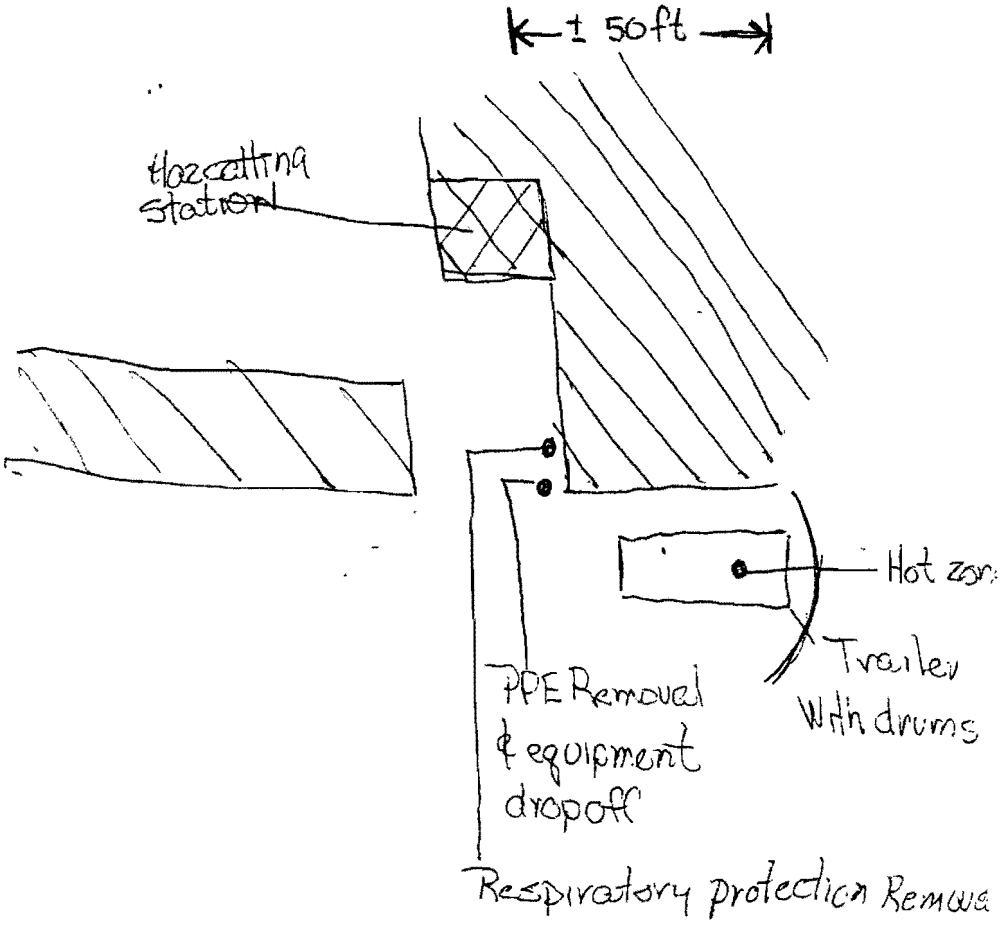
U.S. EPA HSO INFORMED: 7-13-92

ERCS CONTRACTOR HSO INFORMED:

TAT RSO INFORMED:

Physical Parameters	Chemical Contaminant	Chemical Contaminant	Chemical Contaminant	Chemical Contaminant
	UNKNOWNS			
Exposure Limits IDLH Level	____ ppm ____ mg/m³ PEL ____ ppm ____ mg/m³ TLV ____ ppm ____ mg/m³ IDLH	____ ppm ____ mg/m³ PEL ____ ppm ____ mg/m³ TLV ____ ppm ____ mg/m³ IDLH	____ ppm ____ mg/m³ PEL ____ ppm ____ mg/m³ TLV ____ ppm ____ mg/m³ IDLH	____ ppm ____ mg/m³ PEL ____ ppm ____ mg/m³ TLV ____ ppm ____ mg/m³ IDLH
Physical Form Sol.Liq.Gas Color	____ Solid ____ Liquid ____ Gas ____ Color	____ Solid ____ Liquid ____ Gas ____ Color	____ Solid ____ Liquid ____ Gas ____ Color	____ Solid ____ Liquid ____ Gas ____ Color
Odor				
Flash Point Flammable limits	____ Degrees F or C ____% UEL ____% LEL	____ Degrees F or C ____% UEL ____% LEL	____ Degrees F or C ____% UEL ____% LEL	____ Degrees F or C ____% UEL ____% LEL
Vapor Press. Vapor Dens.	____ mm/Hg ____ Air = 1	____ mm/Hg ____ Air = 1	____ mm/Hg ____ Air = 1	____ mm/Hg ____ Air = 1
Specific Gravity	____ Water = 1	____ Water = 1	____ Water = 1	____ Water = 1
Solubility				
Incompatible Materials				
Route of Exposure	____ Inh ____ Abs ____ Con ____ Ing	____ Inh ____ Abs ____ Con ____ Ing	____ Inh ____ Abs ____ Con ____ Ing	____ Inh ____ Abs ____ Con ____ Ing
Symptoms of Acute Exposure				
First Aid Treatment				
Ion Potential	____ eV	____ eV	____ eV	____ eV
Instruments For Detection	____ PID w/____ Probe ____ FID ___ CGI ___ RAD ____ Det Tube ____ Ph Other____	____ PID w/____ Probe ____ FID ___ CGI ___ RAD ____ Det Tube ____ Ph Other____	____ PID w/____ Probe ____ FID ___ CGI ___ RAD ____ Det Tube ____ Ph Other____	____ PID w/____ Probe ____ FID ___ CGI ___ RAD ____ Det Tube ____ Ph Other____

Site Map with work zones:



Decontamination Procedures

( ) Wet Decontamination - using:_____
(X) Dry Decontamination

Description of Site Specific Decontamination Plan: Upon exting the exclusion zone, all equipment will be properly decontaminated. The OSC or designated alternate will inspect and ensure proper decontamination. Expendables will be bagged and left on site

Adequacy of decontamination determined by:_____

100072

Personal Protective Equipment

TASK TO BE PERFORMED/AIR MONITORING REQUIRED	ANTICIPATED LEVEL OF PROTECTION	TYPE OF CHEMICAL PROTECTIVE COVERALL	INNER GLOVE OUTER GLOVE BOOT COVER	TYPE OF APR CARTRIDGE OR CANISTER
Entry into trailer constant air monitoring	B	Saran	Inner- Nitrile outer - Solvex	N/A
Sampling of drums constant air mon	B	Same as	Above	—
Perimeter Recon. Constant	C	Tyvek	inner- Nitrile outer - solvex	MSA GMC-H

Frequency and Types of Air Monitoring: (X) **Continuous** ( ) **Routine -** _____ ( ) **Periodic -** _____

DIRECT READING INSTRUMENTS	COMBUSTIBLE GAS/OXYGEN METER (1)	RADIATION SURVEY METER/PROBE (2)	PHOTOIONIZATION DETECTOR/PROBE (3)	FLAME IONIZATION DETECTOR (4)	CHEM. DETECTOR TUBE (5)
ID NUMBER		190187	G	D	HCl, HCN
CAL. DATE		~~7-14-92~~ (M)	7-14-92	7-14-92	
TAT MEMBER			V Vicenty	PC Potvin	
ACTION LEVEL	≥ 20%LEL ≤19.5%, ≥23% O_2 - LEAVE	3X BACKGRND - CAUTION; 1 MR/HR-LEAVE	UNKNOWNS 0-5 UNITS:"C" 5-500:"B"	UNKNOWNS 0-5 UNITS:"C" 5-500:"B"	PEL/TLV COMPARE W/PF

100073

Size of Site:_____ Terrain_____ Weather_____
Distance to Nearest: Residence_____ School_____ Hospital_____
Public Building_____ Other_____
Evacuation: ( ) Yes ( ) No By Whom:_____
N est Waterway:_____ Distance from Site:_____

Condition	Observed	Potential	None	Comments/Observations
Surface Water Contamination		X		
Ground Water Contamination		X		
Drinking Water Contamination		X	X	
Air Release		X		
Soil Contamination	X			
Stressed Vegetation				
Dead Animal Species				

A ions Taken On-Site:
Perimeter Monitoring: **( ) Yes** **( ) No**
Site Entry by TAT: **( ) Yes** **( ) No**

Tasks Conducted	Level of Protection/Specific PPE Used
Air Monitoring, Initial Entry	B - Saranex
Drum Inventory	B - Saranex
Drum Sampling	B - Saranex

100074

Air Monitoring Summary Log

Date: 11/13/91

Data Collected by: Vincenty

Data to be summarized by a "Range of readings,i.e..- Low to High" and/or "Average" by location.

Station/Location	CGI/O_2 Meter	Radiation Meter	PID/Probe	FID/OVA	Detector Tube
Tank 1 Perimeter	0	0	0	0	
Tank 2 Perimeter	0	0	0	0	
Tank 3 Perimeter	0	0	0	0	
Drum yard	0	0	0	0	
Separator Trench ± ½" above water level	0	0	0	1-2 PPM	

Summary/Comments: All monitoring was performed in Level C since the area is odor suppressed

100075

Date: ___/___/___
Data Collected by: _____

Data to be summarized by a "Range of readings,i.e.,- Low to High" and/or "Average" by location.

Station/Location	CGI/O_2 Meter	Radiation Meter	PID/Probe	FID/OVA	Detector Tube HCl HCh
Initial entry		Background	Background	Background	O
Constant during Inventory & Sampling		Background	Background		

Summary/Comments: _____

100076

Hazardous Waste Site and Environmental Sampling Activities

Off Site: ( ) Yes (X) No
On Site: (X) Yes ( ) No

Describe types of samples and methods used to obtain samples: Solid [illegible] for [illegible] & [illegible], [illegible] by [illegible] with stainless steel auger

Was Laboratory notified of Potential Hazard Level Of Samples? (X) Yes ( ) No

Note: The nature of the work assignment may require the use of the following procedures/programs which will be included as Attachments to this HASP as applicable: Emergency Response Plan, Confined Space Entry Procedures, Spill Containment Program.

Disclaimer: This Health and Safety Plan (HASP) was prepared for work to be conducted under the Technical Assistance Team (TAT) Contract 68-WO-0036 for Zone I. Use of this HASP by WESTON and its subcontractor is intended to fulfill the OSHA requirements found in 29 CFR 1910.120. Items not specifically covered in this HASP are included by reference to 29 CFR 1910 and 1926.

The signatures below indicate that the individuals have read and understood this Health and Safety Plan.

PRINTED NAME	SIGNATURE	AFFILIATION	DATE
PETER DIPASCA, JR.	Peter DiPasca Jr.	WESTON TAT	11-13-91
Victor Viconty	[signature]	WESTON TAT	"
Nick Magriples	Nick Magriples	EPA	"
[signature]	Robert T. [illegible]	EPA	"

Final Submission of HASP by:	Victor Viconty	Date
Post Response Review by:		
Post Response Approval by:		
TAT HSO Review by:		

COMMENTS/FOLLOWUP

100077

Off Site: (X) Yes (X) No
On Site: (X) Yes ( ) No

Describe types of samples and methods used to obtain samples: Samples were collected with Drum Thieves

Was Laboratory notified of Potential Hazard Level Of Samples? (X) **Yes** ( ) **No**

Note: The nature of the work assignment may require the use of the following procedures/programs which will be included as Attachments to this HASP as applicable: Emergency Response Plan, Confined Space Entry Procedures, Spill Containment Program.

Disclaimer: This Health and Safety Plan (HASP) was prepared for work to be conducted under the Technical Assistance Team (TAT) Contract 68-WO-0036 for Zone I. Use of this HASP by WESTON and its subcontractors is intended to fulfill the OSHA requirements found in 29 CFR 1910.120. Items not specifically covered in this HASP are included by reference to 29 CFR 1910 and 1926.

The signatures below indicate that the individuals have read and understood this Health and Safety Plan.

PRINTED NAME	SIGNATURE	AFFILIATION	DATE

Final Submission of HASP by:		Date
Post Response Review by:		
Post Response Approval by:		
TAT HSO Review by:		

COMMENTS/FOLLOWUP

DRUM SAMPLING STANDARD OPERATING PROCEDURES

Introduction

Many hazardous waste disposal sites and industrial facilities have containers on-site that may have to be sampled as part of investigations initiated under RCRA and CERCLA programs. These containers, specifically drums, may have a wide range of contents, including all types of inorganic and organic chemicals with a variety of physical and chemical characteristics. Since the opening and sampling of these drums could release toxic vapors or cause a violent reaction, such operations should be handled with the utmost safety precautions.

Preliminary Assessment

Once a decision to sample has been made, the site should be evaluated and the following information obtained:

1. Categorization of drums

   The entire number of drums should be assessed and categorized into those containing the same or similar chemicals as well as unknown contents. Each of these categories should be considered as a separate group for sampling purposes.

2. The number, type and condition of drums

   Prior to any sampling, the number of drums to be sampled should be determined. Depending on the needs of the program, these drums can be selected by accessibility or randomly. When selecting drums, it is important to select only top bung drums that are in good condition. Deteriorated drums (i.e., rusted, corroded, bulging, etc.) should not be opened or moved as the risk of a rupture or spill is greatly enhanced when dealing with these types of containers.

3. The suitability of the site for a safe and efficient operation

   Care should be taken to insure the safety of the surrounding populace by checking proximity of the site to local residences, highways, railroads or other facilities. A contingency plan should be prepared and discussed with all pertinent personnel prior to initiating the operation. The plan should address mitigatory actions in the event of a spill, leak or explosion.

4. Hazards associated with the site

   A thorough attempt should be made to ascertain the nature of

the material in the drums to be sampled or moved. This can be done in a number of different ways including, review of past analyses, site history, employee and former employee interviews, etc. Any information related to the site should be considered in developing the contingency plan.

Pre-sampling Preparation

A sampling team should be formed based on information gathered in the preliminary assessment and the needs of the program. The sampling team should consist of at least three members, a team leader and two samplers. When possible, a designated safety officer should be included as an additional team member to assist in the development of the sampling and safety plans.

Drum Opening

The selection of a safe drum opening technique should be based on the information available on the contents of the drum. For drums that contain a known substance, the opening procedure may not be as complex as that for drums containing an unknown substance.

1. Containers with known contents

   At least two persons should be used to sample drums. The samplers should be equipped with the proper safety equipment to deal with the material in the drum. If there is any doubt as to the nature of the drummed material, the drum should be handled as if the contents are unknown.

   Drums with known contents that are not reactive or extremely volatile can be opened by hand with a non-sparking bung wrench. Drums that contain a reactive or volatile compound should be opened with a remote opener.

2. Containers with unknown contents

   When opening a drums with unknown contents, it is highly recommended that the drum be opened in an area away from the main drum storage area. Methods for container movement are covered in Technical Methods for Investigation of Sites Containing Hazardous Substances, Technical Monograph No. 20, section 20.4.1.

   Samplers that plan to open drums of unknown material should use a remote bung opening device. The personal protective gear for this operation should be at a minimum level B (SCBA and chemical protection suit). EPA's National Enforcement Investigation Center (NEIC) has developed two remote control drum opening devices, a side penetrating device and a bung remover. For other than emergency response operations, the penetrating device is inappropriate and therefore is not

angle and rotate the trier once or twice to cut a core of material.

2. Slowly withdraw the trier, making certain that the slotted portion is facing upward.

3. Transfer the sample to an appropriate container using a brush or spatula.

Only about 20 to 30 grams of this type of material are required for analysis.

Since both of these samplers are reusable, they should be decontaminated (pre-cleaned) in the field using cleanser and water and brought to the lab for solvent washing.

Note: Some of these solid materials may be reactive when exposed to the atmosphere. The sampler should note any changes in the physical characteristics (i.e. heat build-up, color change) of the sample and retreat to a safe area to discuss mitigatory procedures. It is recommended that non-sparking tools be used when sampling granular or solid media.

Drum Closing

After completion of the sampling activities, the drum should be resealed using a bung wrench.

WEAR EYE PROTECTION AND GLOVES WHEN PERFORMING TESTS

SAFETY

USE AND CARE INSTRUCTIONS:

The HazCat Chemical Identification System's SAFETY depends upon three basic premises:

1. Very small quantities of the unknown are used.
2. Suggested protective clothing should prevent contact with these small amounts of the unknown, even if the clothing is not the optimum material to prevent break through.
3. Very reactive chemicals provide sufficient warning prior to collection.

MAINTAIN YOUR WORK AREA AND EQUIPMENT:

Develop good work habits; work in a ventilated environment; wear safety equipment; maintain the equipment; clean-up spills immediately; and keep work area clean, organized and uncluttered.

TEST TUBES:

Borosilicate test tubes must be used while performing HazCat tests. The amounts of reagent given in the directions for HazCat are specific for 13 x 100 mm borosilicate test tubes.

Occasionally a batch of these test tubes is defective. This can be seen as an unusual amount of breakage, especially during the Char Test. Haztech Systems Inc. recommends the immediate replacement of the entire batch. If the tubes were purchased from Haztech, we will replace them immediately at no cost.

TESTS ARE QUALITATIVE ONLY:

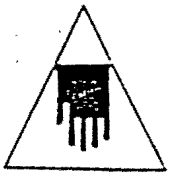
HazCat is qualitative field chemistry. Usually the amounts of reagents used during the tests are purposely small and approximate. If something does not seem right, more or less reagent may be added. When HazCat instructions are specific "add one drop" or "add one drop at a time", FOLLOW THESE DIRECTIONS CAREFULLY.

100082

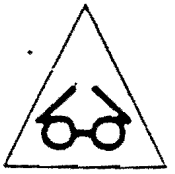
SAFETY

ALWAYS **Wear Protective Clothing** when collecting samples and performing tests!

Caution
Wear
Gas Mask



Caution
Wear Gloves



Caution
Wear
Goggles

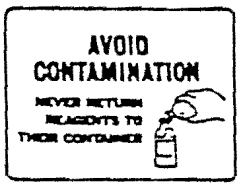
You may not require a respirator in every case, but always wear gloves and goggles.

ALWAYS **Watch Tests!!!!** Looking away can be very dangerous. Do not assume that nothing more is going to happen once you have finished the test. Some delayed reactions can be very violent or, at least, spectacular.

ALWAYS **Consider that a material may have more than one hazard categorization.** If material is still unknown at the end of the test procedure, make sure that you have done a pH test, ignition test, oxidizer test and a peroxide test.

ALWAYS **Keep track of the people who may have been exposed** until you have a hazard classification.

ALWAYS **Wash off any contaminated skin or clothing immediately.** Keep your work station clean. Keep track of your spent test tubes. Do not empty them until you know what the material is.



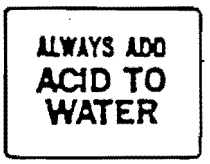
ALWAYS Remember that this system identifies most commonly spilled materials, but not all materials—**treat as dangerous!!!!**

100083

SAFETY

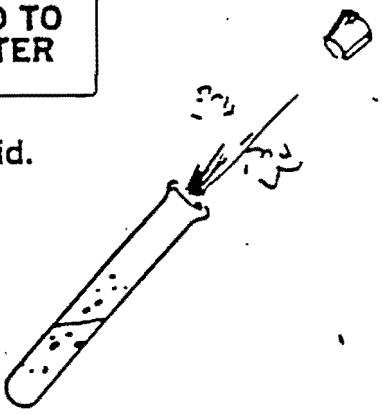
DO NOT point test tube at anyone!

DO NOT add water to the unknown!



DO NOT put HOTchlorine hot wire into liquid.

DO NOT put cork in test tube containing effervescing material!

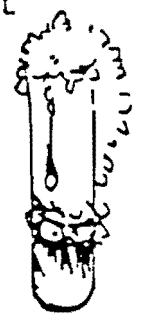


DO NOT **heat the unknown material directly in the char test.** Preheat the tube above the material, and **slowly** work the flame into the region of the test tube containing the unknown.

DO NOT **breathe or smell the fumes** coming off the char test.

DO NOT **hold the test tube in your bare hands.**

If no visible reaction is taking place, you may feel the test tube **carefully** to determine whether the reaction is exothermic or endothermic.



DO NOT **sniff an unknown material.** Often the odor will waft toward you. If the material is not fuming, you may fan a small amount of the head space material in your direction with your hand. Do this after you have completed the tests and have a sense of the category of material you are dealing with.

DO NOT **use the same test tube for more than one test.** Use a new test tube for each test so that there is definitely no contamination from the previous test. You may do the pH test using the water solubility test done just previously.

DO NOT **allow flame near open container of the unknown.** Keep container of unknown material away from water, reagents and other unknowns.

100084

TAT-02-F-06704

SAMPLING PLAN FOR BAYONNE BARREL AND DRUM SITE
NEWARK, NEW JERSEY

Prepared for:

Nick Magriples
Removal Action Branch
U.S. EPA Region II
Edison, New Jersey 08837

Nick Magriples 7/15/92

Prepared by:

Victor Vicenty
Region II Technical Assistance Team
Roy F. Weston, Inc.
Edison, New Jersey 08837

Bayonne Barrel and Drum Sampling Plan

1.0 Project Name: Bayonne Barrel and Drum
Newark, Essex County, New Jersey

2.0 Project Requested By: Nick Magriples, USEPA
Removal Action Branch

3.0 Date Requested: July 8, 1992

4.0 Sampling Date: July 15, 1992

5.0 Project Officer: Victor Vicenty, TAT II PM

6.0 Quality Assurance Officer: Ed Moyle, TAT II QC

7.0 Project Description:

A. Background

Bayonne Barrel and Drum is located off Raymond Boulevard in an industrial section of Newark, Essex County, New Jersey.

The facility was reportedly used for drum reconditioning purposes. The USEPA has documented subsurface PCB soil contamination. Ash material stored in one of the buildings of the facility was found to be contaminated with low levels of dioxin as well as furans.

The property owner has been leasing the property for storage of tankers, trailers and mobile homes. Recently, a trailer was found to have drums containing waste material.

B. Objective

The objective of this sampling program is to obtain data on which will be used to determine the hazardous characteristics of the waste materials in the drums.

C. Data Usage

Data obtained from the sampling program will aid in determining if this site is eligible for a removal or potential enforcement action.

D. Sampling

Six to ten drum samples will be collected for analysis.

E. Analysis

All samples will be tested in the field for the following characteristics:

Solubility	Corrosivity
Cyanide	Oxidizer
Chlorine	Flammability

Field testing results will be substantiated with laboratory analysis. Selected samples will be analyzed for the specified parameters:

Sample Parameter	**Sample Matrix**	**Analytical Method Reference**
Ignitability	Liquid/Solid	1020
Corrosivity	Liquid/Solid	9040
Reactivity	Liquid/Solid	9010/9030

8.0 Project Fiscal Information:

Sampling equipment and manpower will be provided by the TAT contractor. Laboratory Resources, Inc., located in 158 Tices Lane, East Brunswick, NJ., was hired by the TAT contractor to perform the required analysis.

9.0 Project Organizations and Responsibility:

The following is a list of key project personnel and their corresponding responsibilities.

Nick Magriples	On-Scene Coordinator
Victor Vicenty	TAT Project Manager
Anibal Diaz	Laboratory QA/QC Analysis

10.0 Sample Labels:

Each sample must be accurately and completely identified. It is important that any label be moisture resistant and able to withstand field conditions. Sample containers will be labeled prior to sample collection. The information on each label should include the following, but is not limited to:

1. Date of collection
2. Site name
3. Sample identity/location
4. Analysis requested

11.0 Sampling Procedure:

Initial entry into the trailer and sampling will be conducted in level B PPE, which includes the use of a Self Contained Breathing Apparatus (SCBA) including Saranex coveralls, disposable sampling gloves, and booties.

All sampling will be conducted in accordance with applicable EPA Standard Operating Procedure (SOP). A copy of the drum sampling SOP is attached as Appendix A.

12.0 Sample Containers:

All sample containers will be laboratory precleaned glassware. Sample containers will be 8 oz. in volume.

13.0 Sample Custody Procedure:

EPA Chain-of-Custody will be maintained throughout the sampling program as per TAT Standard Operating Procedures (SOP) on sample handling, sample container contract specifications and EPA laboratories SOP.

The Chain-of-Custody form to be used lists the following information:

i. Sample number.

ii. Number of sample containers.

iii. Description of samples including volumes and analysis to be performed.

iv. Identity of person collecting the sample.

v. Date and time of sample collection.

vi. Date and time of custody transfer to laboratory (if the sample was collected by a person other than laboratory personnel).

vii. Identity of person accepting custody (if the sample was collected by a person other than laboratory personnel).

viii. Identity of laboratory performing the analysis.

14.0 Documentation, Data Reduction and Reporting:

Documentation: Field data will be entered into a bound notebook. Field notebooks, Chain-of-Custody forms, and laboratory analysis reports will be filed and stored as per TAT Document Control System. Photographs will be logged in the field notebook including description and location of the picture.

15.0 Quality Assurance and Data Reporting:

Sample analysis will be conducted using quality assurance Level 1 (QA1). The requirements of QA Level 1 are described below:

QA1

1. Sample documentation
2. Chain of custody
3. Summary of sample results
4. Detection Levels
5. Calibration Data

In addition to QA Level 1, one blind duplicate will be included to enhance the QC of the analysis.

16.0 Data Validation:

All steps of data generation and handling will be evaluated by the On-Scene Coordinator (OSC), the Project Officer, and the Quality Assurance Officer for compliance with EPA Region II SOP for validating hazardous waste site data.

17.0 System Audit:

The QA/QC Officer or a designated representative will observe the sampling operations and review subsequent analytical data to assure that the QA/QC project plan has been adhered to.

18.0 Corrective Action:

All provisions in the field and laboratory will be taken to ensure that any problems that may develop will be dealt with as quickly as possible to ensure the continuity of the sampling program. Any deviation from this sampling plan will be noted in the final report.

19.0 Reports:

The turnaround time for the written results of analysis is 5 working days.

APPENDIX A

DRUM SAMPLING SOP

Introduction

Many hazardous waste disposal sites and industrial facilities have containers on-site that may have to be sampled as part of investigations initiated under RCRA and CERCLA programs. These containers, specifically drums, may have a wide range of contents, including all types of inorganic and organic chemicals with a variety of physical and chemical characteristics. Since the opening and sampling of these drums could release toxic vapors or cause a violent reaction, such operations should be handled with the utmost safety precautions.

Preliminary Assessment

Once a decision to sample has been made, the site should be evaluated and the following information obtained:

1. Categorization of drums

   The entire number of drums should be assessed and categorized into those containing the same or similar chemicals as well as unknown contents. Each of these categories should be considered as a separate group for sampling purposes.

2. The number, type and condition of drums

   Prior to any sampling, the number of drums to be sampled should be determined. Depending on the needs of the program, these drums can be selected by accessibility or randomly. When selecting drums, it is important to select only top bung drums that are in good condition. Deteriorated drums (i.e., rusted, corroded, bulging, etc.) should not be opened or moved as the risk of a rupture or spill is greatly enhanced when dealing with these types of containers.

3. The suitability of the site for a safe and efficient operation

   Care should be taken to insure the safety of the surrounding populace by checking proximity of the site to local residences, highways, railroads or other facilities. A contingency plan should be prepared and discussed with all pertinent personnel prior to initiating the operation. The plan should address mitigatory actions in the event of a spill, leak or explosion.

4. Hazards associated with the site

A thorough attempt should be made to ascertain the nature of the material in the drums to be sampled or moved. This can be done in a number of different ways including, review of past analyses, site history, employee and former employee interviews, etc. Any information related to the site should be considered in developing the contingency plan.

Pre-sampling Preparation

A sampling team should be formed based on information gathered in the preliminary assessment and the needs of the program. The sampling team should consist of at least three members, a team leader and two samplers. When possible, a designated safety officer should be included as an additional team member to assist in the development of the sampling and safety plans.

Drum Opening

The selection of a safe drum opening technique should be based on the information available on the contents of the drum. For drums that contain a known substance, the opening procedure may not be as complex as that for drums containing an unknown substance.

1. Containers with known contents

At least two persons should be used to sample drums. The samplers should be equipped with the proper safety equipment to deal with the material in the drum. If there is any doubt as to the nature of the drummed material, the drum should be handled as if the contents are unknown.

Drums with known contents that are not reactive or extremely volatile can be opened by hand with a non-sparking bung wrench. Drums that contain a reactive or volatile compound should be opened with a remote opener.

2. Containers with unknown contents

When opening a drums with unknown contents, it is highly recommended that the drum be opened in an area away from the main drum storage area. Methods for container movement are covered in Technical Methods for Investigation of Sites Containing Hazardous Substances, Technical Monograph No. 20, section 20.4.1.

Samplers that plan to open drums of unknown material should use a remote bung opening device. The personal protective gear for this operation should be at a minimum level B (SCBA

and chemical protection suit). EPA's National Enforcement Investigation Center (NEIC) has developed two remote control drum opening devices, a side penetrating device and a bung remover. For other than emergency response operations, the penetrating device is inappropriate and therefore is not discussed in this SOP.

The bung remover is designed to be used on vertical top bung drums only. The opener should only be used on drums of known integrity, i.e., not rusted or corroded. It is also recommended that the smaller diameter bung be opened first, if possible, as this operation requires less torque.

To set up the apparatus, the drum bracket should be aligned with the wrench bracket directly over the bung to be opened, and fastened securely to the drum. The non-sparking bung socket should then be placed on the bung and the impact wrench fastened into the drum bracket. The sampler should now attach the low pressure air hose to the drill and then return to the low pressure tank. The opening operation requires a short (2-5 second) burst of air from the tank. (The distance from the drum to the low pressure tank is variable depending on length of hose or the predesigned safety area). If the bung has not been loosened, the sampler should return to the drum to recheck the setup.
Some common causes of problems are:

1) The drill is loose in its bracket.
2) The drill direction is reversed.
3) The drum bracket is not aligned properly.

If the set-up seems satisfactory, the drill should set up to remove the larger bung and the operation repeated. If the drum does not open after repeated attempts, another drum should be selected.

Sampling

The sampling method to be used is determined by the physical state of the drummed material (solid, liquid, sludge, etc.). It is important to coordinate the sampling effort with the laboratory. The lab will be able to indicate the amount of sample needed to perform the desired analysis.

1. Liquid Waste

To sample waste, a 4-foot length of glass tube should be used. The inside diameter of the tube will be dependent on the viscosity of the material (for most liquids, 6 to 8 mm I.D. tube should be adequate). To sample, one person should insert the tube into the drum. By sealing the top of the tube with a stopper or thumb, the sampler can extract a sample from the

drum. The other sampler should be holding the sample container and assist in transferring the material to the container. After collecting the sample, the glass tube is broken and placed in the drum.

Note: Sampling personnel should observe if multi-phase liquid layers are in the glass tube. Samples of each phase may be obtained using the same method. This will require separate sample containers for each phase if drum waste characterization is being performed.

2. Sludge Waste

For sludges, a larger bore glass tube may be needed. This may require removing the larger bung. A 40 ml glass vial fastened to a wooden dowel can be used in lieu of a large bore glass tube. The glass tube or vial and dowel should be disposed of properly, e.g., placed in the drum that was sampled, buried on-site, etc.

Note: If the small bung has already been removed, the large bung can be removed with a bung wrench.

3. Solid Waste

Occasionally, a drum containing a solid or granular waste may have to be sampled. These types of drums, often constructed of fiberboard, are easily sampled with a disposable scoop if the drum is an open-top. If the drum is closed, a brass or wood spoon attached to a wooden dowel may be used. To obtain core samples, two tools are recommended: a grain sampler or a sampling trier.

The grain sampler consists of two slotted telescoping tubes, usually made of brass or stainless steel. The outer tube has a conical, pointed tip on one end that permits the sampler to penetrate the material being sampled.

To sample:

1. Insert the sampler in the closed position into the material to be sampled.

2. Rotate the inner tube to open the sampler and wiggle the tube to allow materials to enter the device.

3. Remove the sampler from the material and transfer contents to appropriate sample container.

A typical sampling trier is a long tube with a slot that

extends almost its entire length. The tip and edges are sharpened to allow easier penetration into the material to be sampled. The use of the trier is similar to that of the grain sampler discussed above. However, the trier is preferred when sampling moist media.

To sample:

1. Insert the trier into the waste material at a slight angle and rotate the trier once or twice to cut a core of material.

2. Slowly withdraw the trier, making certain that the slotted portion is facing upward.

3. Transfer the sample to an appropriate container using a brush or spatula.

Only about 20 to 30 grams of this type of material are required for analysis.

Since both of these samplers are reusable, they should be decontaminated (pre-cleaned) in the field using cleanser and water and brought to the lab for solvent washing.

Note: Some of these solid materials may be reactive when exposed to the atmosphere. The sampler should note any changes in the physical characteristics (i.e. heat build-up, color change) of the sample and retreat to a safe area to discuss mitigatory procedures. It is recommended that non-sparking tools be used when sampling granular or solid media.

Drum Closing

After completion of the sampling activities, the drum should be resealed using a bung wrench.

WESTON MANAGERS DESIGNERS/CONSULTANTS
1090 King Georges Post Rd.
Suite 201, Edison, NJ 08837 908-225-6116

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-WO-0036

TAT-02-F-06713

MEMORANDUM

TO: Nick Magriples, EPA OSC

FROM: Victor Vicenty, TAT ~~PM~~
Michael Mentzel, TAT QC MM

DATE: July 22, 1992

SUBJECT: Bayonne Barrel and Drum Assessment and Sampling Trip Report
US Highway 1 and Raymond Boulevard
Newark, Essex County, New Jersey

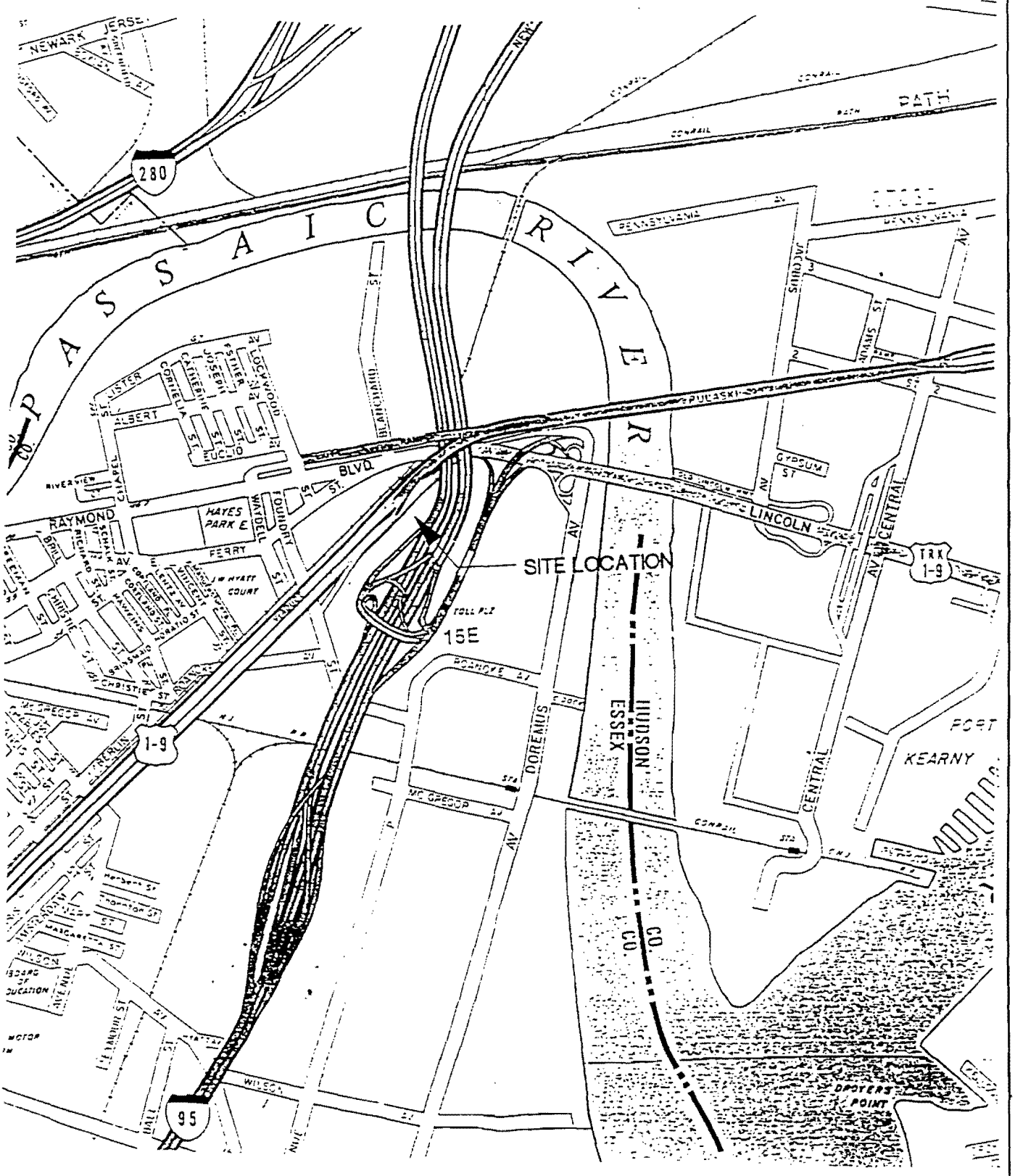
This memorandum summarizes the July 15, 1992, site assessment and sampling activities performed at the aforementioned site. Figure 1 shows the approximate location of the site.

EPA and TAT mobilized to the site to conduct air monitoring and hazcat samples collected from drums contained in a trailer within the site. The approximate location of the trailer within the site is shown on Figure 2.

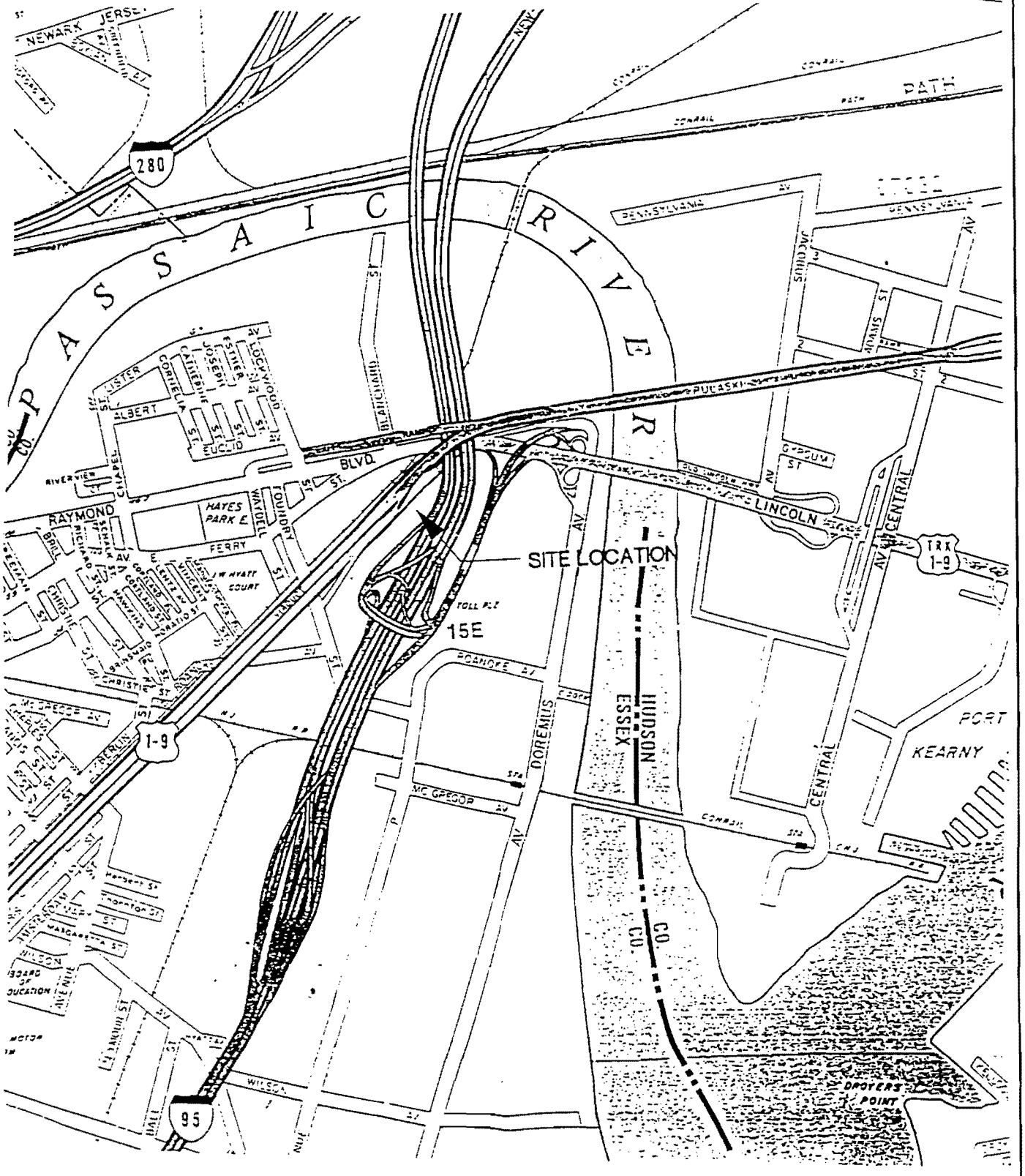
EPA and TAT performed a Level "B" initial entry into the trailer with an HNU/PID (10.2 eV probe), OVA/FID and radiation meter. No readings above background conditions were observed. An air monitoring log is presented as Appendix A.

Afterwards, EPA and TAT inventoried the trailer. Sixteen (16) drums were observed to contain product and approximately 25 were empty. The drums were numbered from 1 to 16 in red. The numbers were circled since the drums had numerical markings on them. A description of the drums, including all markings, was logged in the site log book.

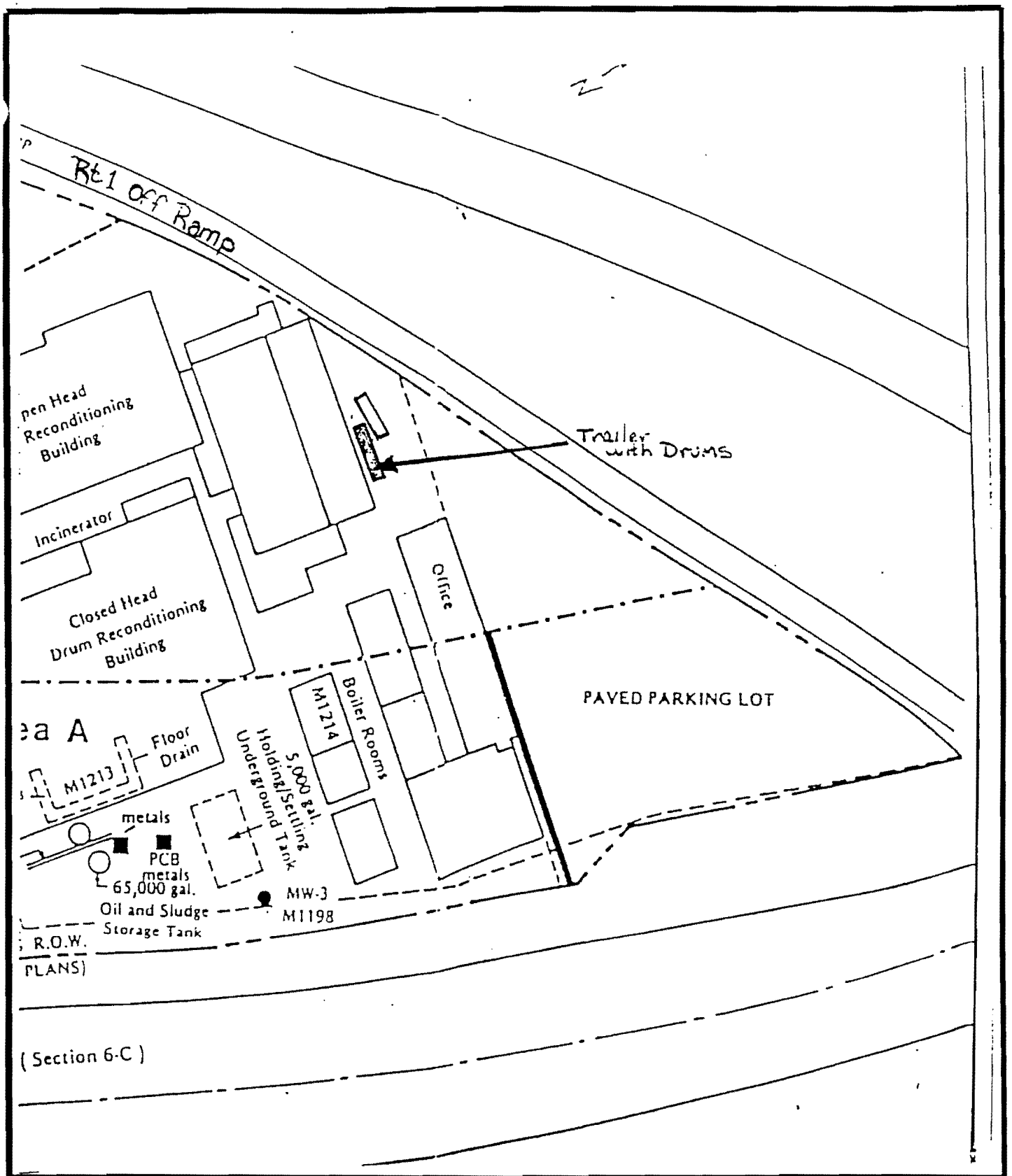
EPA and TAT obtained all samples using glass drum thieves. Samples were collected in 8 oz. glass jars. Samples could not be obtained from drums 1, 5, 8, 14 and 15. Drum No 1 contained a black sludge, drum 8 had about 1" of material and drums 5, 14 and 15 were empty. A total of 11 samples were collected. TAT kept constant air monitoring during the initial portion of the sampling operation. Low Hnu-battery charge distorted the instrument readings and the instrument was not further used.



WESTON	Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	Site Locator
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES		TAT PM V. Vicenty	Figure 1



WESTON	Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	Site Locator
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES		TAT PM V. Vicenty	Figure 1



WESTON MANAGERS DESIGNERS/CONSULTANTS Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES	TAT PM V. Vicenty	Trailer Locator

The samples were cleaned, delivered to the TAT Hazcatter and tested on-site. According to the hazcatting results, the materials include combustible, chlorinated and corrosive liquids. A summary of the hazcatting results is presented as Appendix B.

Seven samples were selected by the OSC for laboratory analyses. These samples were carried to Laboratory Resources, Inc., in East Brunswick, NJ. A summary of the sampling event shipment in Presented in Table 1 below.

TABLE 1

Sample Number	Matrix	Analyses	Location	Shipment Date
2	Liquid	Ignitability - Corrosivity	Drum No. 2	07-15-92
4	Liquid	Ignitability - Corrosivity	Drum No. 4	07-15-92
7	Liquid	Ignitability - Corrosivity	Drum No. 7	07-15-92
9	Liquid	Ignitability - Corrosivity	Drum No. 9	07-15-92
10	Liquid	Ignitability - Corrosivity	Drum No. 10	07-15-92
11	Liquid	Ignitability - Corrosivity	Drum No. 11	07-15-92
13	Liquid	Ignitability - Corrosivity	Drum No. 13	07-15-92
17	Liquid	Ignitability - Corrosivity	Drum No. 7	07-15-92

A copy of the Chain of Custody Record is included as Appendix C. The summary of the laboratory results and a copy of them is presented as Appendices D and E respectively.

TAT documented all site activities and conditions in a logbook. All hazardous PPE and hazcatted samples were left on-site.

cc: TAT PM
TDD File

APPENDIX A

Date: 1/15/92
Data Collected by: Victor Vicenty

Data to be summarized by a "Range of readings,i.e..- Low to High" and/or "Average" by location.

Station/Location	CGI/O_2 Meter	Radiation Meter	PID/Probe	FID/OVA	Detector Tube HCl, HCN
Background		.05	0.2 units	1 ppm	
Inside Trailer		.05	0.2 units	1 ppm	0, 0

Summary/Comments: No readings were detected above background levels

100103

APPENDIX B

Drum Number	Type of Drum	Size (gal)	Full (%)	Markings/Comments	Solubility		pH	State	Color	Miscellaneous	Compatibility Group
					Water	Hexane					
1	17-E	55	25	D - 2 Sludge						HNu - Background Oxid. - CN - Cl - Flam. -	Sample Not Drawn
2	17-E	55	33		+	-	4	Liquid	Clear	HNu - Background Oxid. - Negative CN - Negative Cl - Negative Flam. - Negative	NL
3	17-E	55	75	D - 1	-	+	5	Oily Water	Brown	HNU - 120 units Oxid. - Negative CN - Negative Cl - Negative Flam. - Negative	Oily Water
4	17-E	55	100	D - 3 Hangstore	+	+	4	Liquid	Clear	HNU - 20 Oxid. - Negative CN - Negative Cl - Negative Flam. - Positive	OL
5	Poly	55	0	Empty Drum						HNU - Oxid. - Flam. -	MT
6	17-E	55	33	D - 4 Oil Clear	SS	SS	5	Liquid	Rust/ Reddish	HNU - 2 units Oxid. - Negative CN - Negative Cl - Negative Flam. - Negative	Oily Water
7	17-E	55	33	Grey Mills Clipper Gitene Parts Cleaning Fluid Methylene Chl.	+	+	5	Liquid	Clear	HNU - 3 Units Oxid. - Negative CN - Negative Cl - Positive Flam. - Positive	OL
8	17-E	55	1"							HNU - Oxid. - CN - Cl - Flam. -	MT
9	17-E	55	75	D - 5 Castor Oil HNu's sensitivity may have been affected by low battery charge.	-	+	5	Liquid	Clear Amber	HNu - Background Oxid. - Negative CN - Negative Cl - Negative Flam. - Positive	OL
10	17-E	55	33	D - 6 HNu's sensitivity may have been affected by low battery charge.	+	-	7	Liquid	Clear Amber	HNu - Background Oxid. - Negative CN - Negative Cl - Negative Flam. - Positive	Flammable Inorganic Liquid

Drum Number	Type of Drum	Size (gal)	Full (%)	Markings/Comments	Solubility		pH	State	Color	Miscellaneous	Compatibility Group
					Water	Hexane					
11	17-E	55	100	D - 7 IPL HNu's sensitivity may have been affected by low battery charge.	+	+	5	Liquid	Clear	HNu - Background Oxid. - Negative CN - Negative Cl - Negative Flam. - Positive	Flammable Inorganic Liquid
12	17-E	55	25	ZEP HNu's sensitivity may have been affected by low battery charge.	+	-	5	Liquid	Clear	HNu - Background Oxid. - Negative CN - Negative Cl - Negative Flam. - Negative	NL
13	17-E	55	100	DTL Alcohol	-	+	5	Liquid	Clear	HNu - ND Oxid. - Negative CN - Negative Cl - Positive Flam. - Positive	OL
14	17-E	55	0	Empty Drum						HNU - Oxid. - Flam. -	MT
15	17-E	55	0	Empty Drum						HNU - Oxid. - Flam. -	MT
16	Poly Carboy	30	6"	Phosphoric Acid (HPO3) Corrosive - Monsanto	-	-	0 - 1	Liquid	Clear	HNu - Oxid.- Flam.-	Corrosive Liquid

Legend:

OL - Organic Liquid
NL - Neutral Liquid
MT - Empty
ND - Not Performed

APPENDIX C

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY - REGION II
ENVIRONMENTAL SERVICES DIVISION
EDISON, NEW JERSEY 08817

T2 08621

Name of Unit and Address: Nick Magriples (908) 906-6930
Region II EPA, 2890 Woodbridge Ave
Edison NJ

Sample Number	Number of Containers	Description of Samples
2	1	1x8oz for Ignitability & Corrosivity
4	1	"
7	1	"
9	1	"
10	1	"
11	1	"
13	1	"
17	1	"

Person Assuming Responsibility for Sample: Victor Vicenty Region II EPA-ERT — Time: 1430 — Date: 7/15/92

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
All	Victor Vicenty				Laboratory Analysis
2		[illegible] Lab Rep	1715	7/16/92	

Page No.

100108

APPENDIX D

SUMMARY OF LABORATORY ANALYSES

Sample Number	Flashpoint (F) Results	Corrosivity(pH units) Results
2	> 160	3.99
4	125	3.73
7	> 160	4.20
9	130	4.88
10	130	8.30
11	80	6.30
13	80	4.64
17	> 160	4.52

APPENDIX E

REGULAR TEST RESULTS BY TEST

CORROSIVITY OF WASTE SAMPL **Minimum:** 1 **Maximum:** 14
Method:

Sample	Sample Description	Result	Units	Extracted	Analyzed	By
01A	2	3.99	pH units		07/16/92	JD
02A	4	3.73	pH units		07/16/92	JD
03A	7	4.20	pH units		07/16/92	JD
04A	9	4.86	pH units		07/16/92	JD
05A	10	6.30	pH units		07/16/92	JD
06A	11	6.30	pH units		07/16/92	JD
07A	13	4.64	pH units		07/16/92	JD
08A	17	4.52	pH units		07/16/92	JD

FLASH POINT (DEGREES F) **Minimum:** **Maximum:**
Method: ASTM D-93

Sample	Sample Description	Result	Units	Extracted	Analyzed	By
01A	2	>160	degrees F		07/17/92	JD
02A	4	125	degrees F		07/17/92	JD
03A	7	>160	degrees F		07/17/92	JD
04A	9	130	degrees F		07/17/92	JD
05A	10	130	degrees F		07/17/92	JD
06A	11	80	degrees F		07/17/92	JD
07A	13	80	degrees F		07/17/92	JD
08A	17	>160	degrees F		07/17/92	JD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: May 16, 1984

SUBJECT: Bayonne Barrel and Drum RCRA Sampling Results (NJD009871401)

FROM: Louis DiGuardia, Geologist 5/16/84
Source Monitoring Section

TO: William K. Sawyer, Attorney
Waste and Toxic Substances Branch

Thru: John Ciancia, Chief
Source Monitoring Section

Richard D. Spear, Chief
Surveillance and Monitoring Branch

On February 17, 1984 a RCRA sampling survey was conducted at Bayonne Barrel and Drum by Joseph Cosentino, Karen Egnot, Steven Hale, Brian Kovak and myself. This survey was conducted at the request of the Waste and Toxic Substances Branch to determine if any actions were taken by Bayonne Barrel and Drum in order to comply with the complaint and compliance order issued May 20, 1982.

The facility located at 150 Raymond Boulevard in Newark, New Jersey was formerly in the business of cleaning and reconditioning dirty and damaged drums. The facility encompasses an area of approximately 20 acres. At the time of the inspection, operations had ceased and the company had filed for bankrupcy.

Drum cleaning operations formerly involved both closed head and open head drums. In closed head cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon under ground holding/settling tank and was then pumped into a 60,000 gallon above ground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open head drums were placed on a conveyor belt and moved through an incinerator which burned residue out of the inside. This residue material was collected in two subsurface holding/settling tanks. Approximately 40,000 lbs of incinerator ash and sludge was generated monthly.

Samples were taken from the following areas of concern:

1) Under ground 5,000 gallon holding/settling tank

Sampling #65189 - aqueous sample collected from the tank.
Sampling #65190 - composite soil sample collected from the area around the tank.

2) Oil/Water Separator

Sample #65188 - aqueous sample collected from oil separator trench.

3) Subsurface tank near incinerator

Sample #65191 - aqueous sample collected from the subsurface tank.
Sample #65192 - composite soil sample near subsurface tank.

4) Incinerator ash waste pile

Sample #65184 - composite sample taken from ash pile
Sample #65185 - " " " " " "
Sample #65186 - " " " " " "
Sample #65187 - composite soil sample taken around ash pile

Sampling equipment and containers were prepared according to EPA standard procedures prior to sampling. A total of nine (9) samples were taken, three (3) aqueous, three (3) soil, and three (3) from the ash pile.

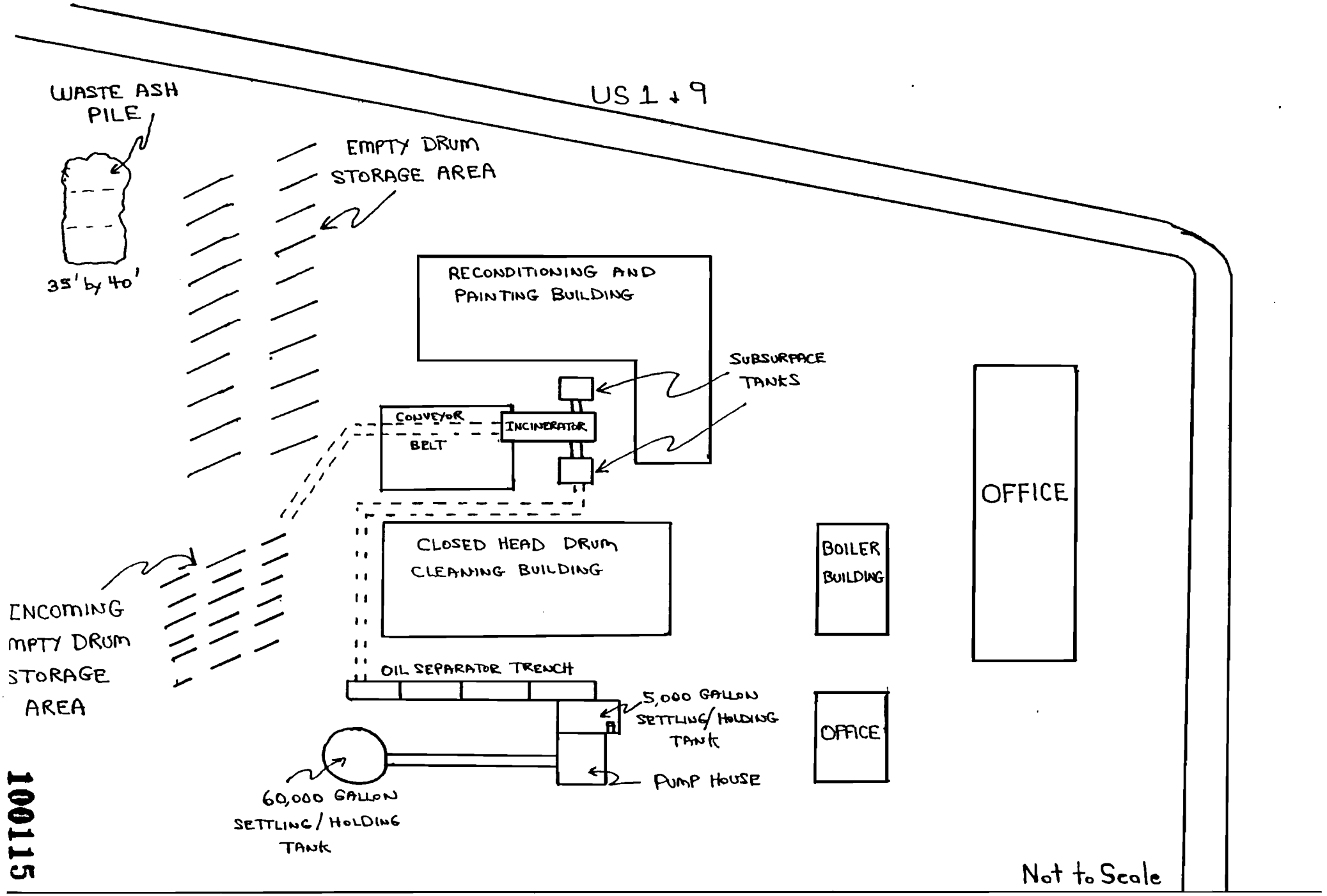
Aqueous samples were analyzed for RCRA characteristics (ignitability and corrosivity) and non-volatile (NVOA) and purgeable (POA) organic priority pollutants. Soil and ash samples were analyzed for the characteristics of EP toxicity (metals, herbicides and pesticides) as defined in RCRA, as well as metal analysis, and priority pollutants (NVOA, POA). All analyses were performed in EPA's Edison, New Jersey laboratory. EPA standard procedures were followed for the collection of samples throughout the survey.

Sample results are given in Tables I thru VI. Results indicate that all samples contained a number of organic compounds. In the incinerator ash waste pile, EP toxicity limits for metals were exceeded for both cadmium and lead. Also, the metals scan showed high levels of heavy metal contamination in all ash and soil samples.

In addition to the above analysis, PCB's in measurable quantities were detected in sample #65187, soil by ash pile.

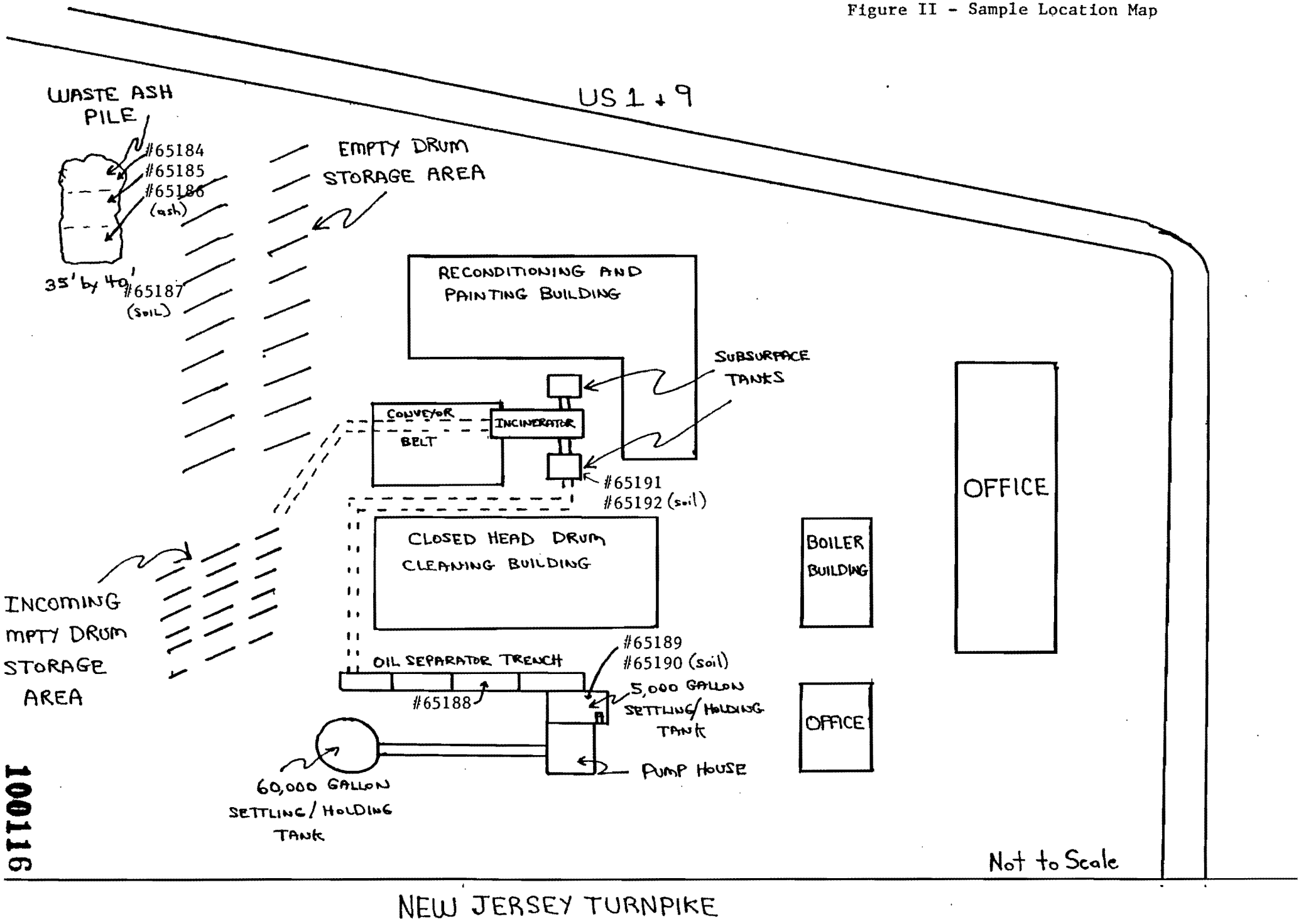
Attachments:
Figure I - Map of Facilities Grounds
Figure II - Sample Location Map
Tables I-VI - Analytical Results
Appendix I - Photographs
Appendix II - Receipt of Samples

Figure I - Map of Facility Grounds



100115

Figure II - Sample Location Map



100116

Table I

Comparison of Waste Analysis to Characteristics of Corrosivity and Ignitability

Parameter	Maximum Allowable Limit	65188	65189	65191
Ignitability	> 140°F	> 140°F	> 140°F	> 140°F
Corrosivity	> 2.5 S.U.	*	*	6.93 S.U.

S.U. - Standard Units

65188 - Oil Separator
65189 - 5000 Gallon Tank
65191 - Subsurface Tank by Incinerator

* - No Analysis Performed

Table II

Comparison of Sample Analysis to Characteristic of EP Toxicity

Parameter	Maximum Concentration for EP Toxicity mg/l	65184 mg/l	65185 mg/l	65186 mg/l	65187 mg/l	65191 mg/l	65192 mg/l
Arsenic	5.0	.02K	.02K	.02K	.02K	.02K	.02K
Barium	100.0	4.0	5.3	1.3	1.5	.16	1.7
Cadmium	1.0	.99	1.2	.17	.08	.002K	.04
Chromium	5.0	.02J	.01J	.04	.008K	.02J	.08J
Lead	5.0	7.6	10.0	2.4	.25	.04	.10
Mercury	0.2	.0002K	.0002K	.0002K	.001	.0002K	.0002K
Selenium	1.0	.008K	.02J	.008K	.008K	.009J	.008K
Silver	5.0	.002K	.002J	.002K	.002J	.002K	.002K
Endrin	.02	.000008K	.000008K	.000008K	.000008K	.000008k	.000008K
Lindane	.4	.00003	.00004	.00023	.00066	.00002	.000003K
Methoxychlor	10.0	.00038	.00008K	.00328	.01100	.00054	.00059
,4,-D	10.0	.0003K	.0003K	.0073	.0080	.0003K	.0003K
Silvex	1.0	.00007K	.00007K	.00007K	.00007K	.00007K	.00007K
Toxophene	0.5	.00035K	.00035K	.00035K	.00035K	.00035K	.00035K

K = Actual valve less than valve given
J = Estimated valve

65184, 65185, 65186 - Ash Pile
65187 - Soil by Ash Pile
65191 - Subsurface Tank Near Incinerator
65192 - Soil by Subburface Tank Near Incinerator

Table III

Results of Metals Analysis on Samples

Parameter	65184 mg/kg	65185 mg/kg	65186 mg/kg	65187 mg/kg	65192 mg/kg
Silver	3K	3J	3K	3K	3K
Arsenic	7.5	6.6	3J	23	7.0
Beryllium	1J	1K	1K	1K	1K
Cadmium	160	120	84	59	13
Chromium	2900	1800	3300	650	1200
Copper	3300	2400	1100	1000	1100
Mercury	12	.5J	21	27	7.4
Lead	21,000	13,000	17,000	4500	2700
Nickel	250	250	79	99	850
Antimony	.8K	.8K	.8K	.8K	.8K
Selenium	.9J	5.1	.8K	4.2	2J
Thallium	.8K	.8K	.8K	.8K	.8K
Zinc	3400	3800	3500	2300	1900

K = Actual valve less than valve given
J = Estimated valve

65184, 65185, 65186 - Ash Pile
65187 - Soil by Ash Pile
65192 - Soil by Subsurface Tank Near Incinerator

Table IV

Results of Organics Analysis on Samples

Organic Compounds	65188 ug/l	65189 ug/l	65191 ug/l
Fluoranthene		90J	
Isophoronnne	1800J		1300
Nephthalene	1500J	1400	
Bis(2-ethylhexyl) phthalate	13,000	6900	
Butyl benzly phthalate		1100	
Di-n-butyl phthalate	3800J	1800	
Fluorene		70J	
Phenanthrene	2500J	290	
Pyrene		60J	
Phenol			110J
Toluene			4900

J = Estimated valve
K = Actual valve less than valve given

65188 - Oil Separator
65189 - 5,000 Gallon Tank
65191 - Subsurface Tank by Incinerator

Table Va

Results of Organic Analysis on Samples

Organic Compounds	65184 ug/kg	65185 ug/kg	65186 ug/kg	65187 ug/kg	65190 ug/kg	65192 ug/kg
Acenaphthene			4300J	2500J	1400J	
1,2,4-Trichlorobenzene			8400	1200J		
1,2-Dichlorabenzene		730				
1,4-Dichlorobenzene		240				
1,2-Diphenylhydrazine	3200J		11000	1900J	1500J	2300J
Fluoranthene	2600J	280	15000	12000	12000	3700J
Isophorane	92000	22000	250000	27000		25000
Naphthalene	110000	8300	180000	18000	22000	12000
N-nitrosodiphenyulamine	20000	120	1700J	2000J	4800J	780J
Bis(2-ethylhexyl)phthalatel	800000	11000	1200000	990000	1200000	210000
Butyl benzyl phthalate	370000	2100	1200000	210000	400000	200000
l n-butyl phthalate	450000	2100	330000	110000	280000	280000
Di-n-octyl phthalate	5700J	1200	7200	3800J		770J
Diethylphthalate	9700	400				
Dimethylphthalate	24000					
Acenaphthylene	1200J	160		1800J		3100J
Anthracene	2300J	100	8000	3000J		1400J
Fluorene	2400J	57K	7400	3200J	3300J	1600J
Phenanthrene	12000	900	32000	17000	28000	7000
Pyrene	3600J	260	14000	15000	9000	4700J
Phenol	80000	170	46000	5800J		4700J

J = Estimated valve
K = Actual valve less than valve given

Table Vb

Results of Organic Analysis on Samples

Organic Compounds	65184 ug/kg/	65185 ug/kg	65186 ug/kg	65187 ug/kg	65190 ug/kg	65192 ug/kg
Benzene	160	130	480		15	
1,2-Dichloroethane	46		88	36		
1,1,1-Trichloroethane	58	380	7000	350	15	
1,1-Dichloroethane	320	67	500	16		
1,1,2-Trichloroethane	1300		5000	660		
Chloroform	47	120	160	23		
1,1-dichloroethylene	68		400	13		
1,2-dichloropropane		18K				
Ethylbenzene	3200	1900	65000	120	580	
Methylene Chloride	10000	4600	8700	1500		
Tetrachloroethylene	1800	1300	2600	460	100	
Toluene	28000	11000	320000	630	1700	
Trichloroethylene	2200	1200	8100	290	19	
Vinyl Chloride	1600		150			

J = Estimated valve
K = Actual valve less than valve given

65184, 65185, 65186 - Ash pile
65187 - Soil by Ash Pile
65190 - Soil by 5,000 Gallon Tank
65192 - Soil by Subsurface Tank Near Incinerator

Table VI

Results for PCB Analysis

PCB	#65187
Aroclor 1248	67.2 mg/kg
Aroclor 1254	117.5 mg/kg

65187 - Composite soil sample by ash pile

Appendix I - Photograph Descriptions

Photo #1 - Under ground 5,000 gallon holding/settling tank

Photo #2 - Oil-water separator trench

Photo #3 - Incinerator area

Photo #4 - Subsurface tank near incinerator (facing incinerator - left tank)

Photo #5 - Subsurface tank near incinerator (facing incinerator - right tank)

Photo #6 - Area adjacent to incinerator

Photo #7 - Incinerator ash waste pile

Photo #8 - Incinerator ash waste pile

Photo #9 - Incinerator ash waste pile

Photo #10 - Incinerator ash waste pile

Photo #1

Photo #2

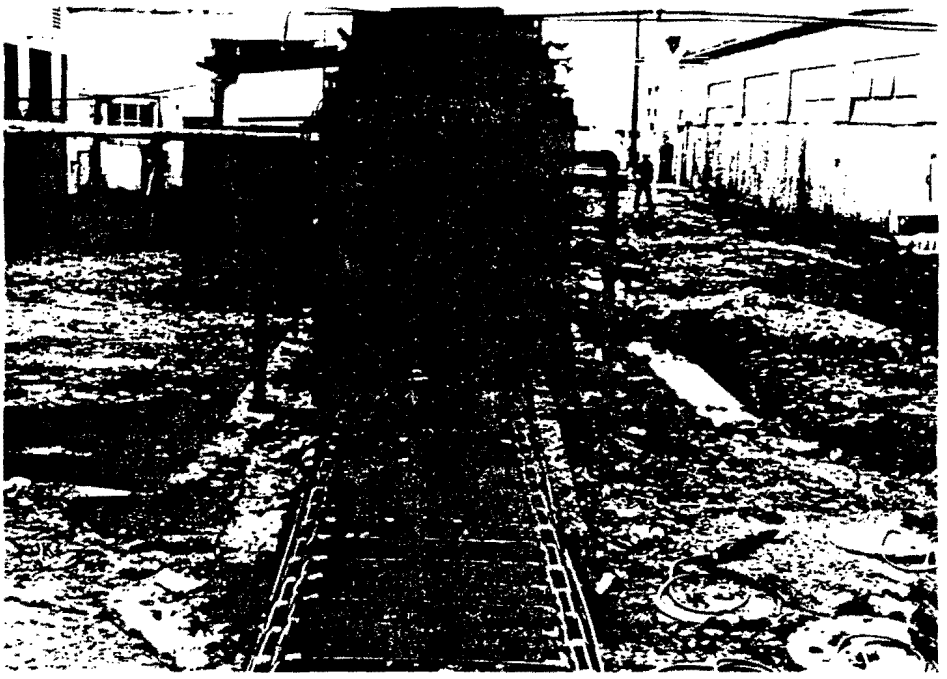


Photo #3

Photo #4

Photo #5

Photo #6

Photo #7

Photo #8

Photo #9

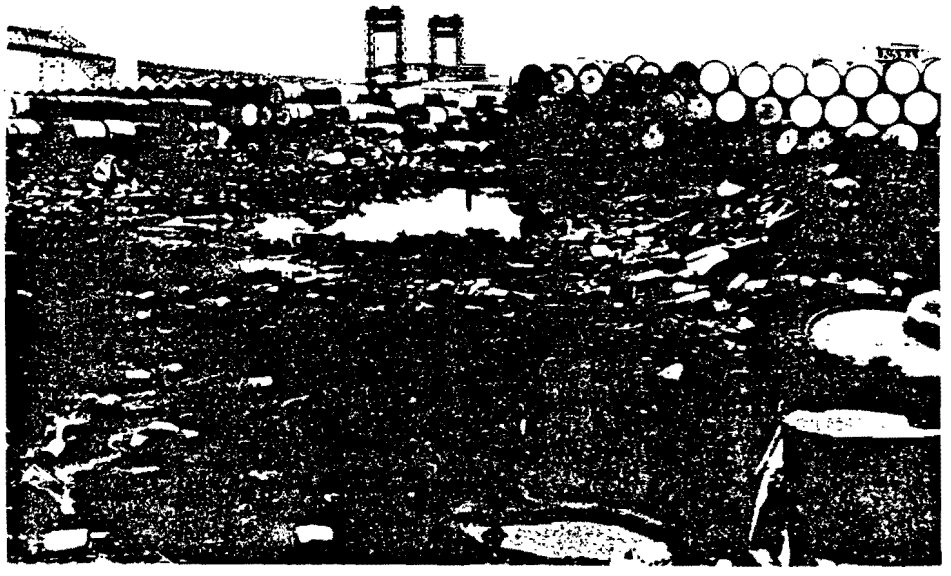


Photo #10

Appendix II

~~CHAIN OF CUSTODY RECORD~~
RECEIPT OF SAMPLES

ENVIRONMENTAL PROTECTION AGENCY – REGION II
SURVEILLANCE & ANALYSIS DIVISION
EDISON, NEW JERSEY 08817

Name of Unit and Address: Bayonne Barrel + Drum, 150 Raymond Blvd, Newark, N.J.

NJD 00 7871401

2/17/84

Sample Number	Number of Containers	Description of Samples	Corresponding #
65184	4	NVOA, PA, EP Toxicity	1
65185	4	NVOA, PA, EP Toxicity	2
65186	4	NVOA, PA, EP Toxicity	3
65187	4	NVOA, PA, EP TOXICITY	4
65188	6	NVOA, PA, EP TOXICITY, Ignitability, Corrosivity	5
65189	6	NVOA, PA, EP TOXICITY, Ignitability, Corrosivity	6
65190	2	NVOA, PA	7
65191	6	NVOA, PA, EP TOXICITY, Ignitability, Corrosivity	8
65192	4	NVOA, EP TOXICITY	9

Tom D. Suki - U.S EPA

Frank Fragella

Person Assuming Responsibility for Sample:	Time	Date

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Page No.

100130

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: August 19, 1988

SUBJECT: Transmittal of RCRA Enforcement Inspection for Bayonne Barrel & Drum

FROM: Michael Ferriola, Environmental Scientist
Source Monitoring Section Michael Ferriola

TO: George Meyer, Chief
Hazardous Waste Compliance Branch

Enclosed is a copy of the inspection report for the RCRA Enforcement Inspection conducted at Bayonne Barrel & Drum on June 2, 1988.

attachments

cc: Ted Gabel w/o attachments

RCRA Enforcement Inspection

Bayonne Barrel and Drum
Newark, New Jersey

NJD009871401

June 2, 1988

Participating Personnel:

U.S. Environmental Protection Agency

M. Ferriola, Environmental Scientist
R. Coleates, Environmental Scientist
R. Morrell, Geologist
D. Dugan, Environmental Scientist
J. Wilk, Environmental Scientist

Bayonne Barrel and Drum

Frank Langella, Company owner

Report Prepared by:

Michael Ferriola, Environmental Scientist
Source Monitoring Section

Approved for the Director by:

Richard D. Spear, Chief
Surveillance and Monitoring Branch

100132

Bayonne Barrel and Drum
Newark, New Jersey

NJD009871401
June 2, 1988

RCRA ENFORCEMENT INSPECTION

Objective

A RCRA sampling inspection was conducted at Bayonne Barrel and Drum (BBD) on June 2, 1988, by members of EPA's Region II, Environmental Services Division. This investigation was requested by the Hazardous Waste Compliance Branch (HWCB) in New York. The scope of this inspection was to determine if BBD is actively storing hazardous wastes on site and establish present site conditions as compared to the original sampling investigation performed by EPA in 1984. A general site map (Figure 1) is attached which illustrates the approximate sampling locations.

Survey Participants

Frank Langella, Company owner - Bayonne Barrel and Drum

Tom Colligan, Operations Manager - Interwaste Services Company (ISCO)
James Wilson, Field Engineer - ISCO
Andy Kondracki, Environmental Controls Manager - ISCO
Mike Young, ISCO

Mike Ferriola, Environmental Scientist - U.S. EPA
Richard Coleates, Environmental Scientist - U.S. EPA
Robert Morrell, Geologist - U.S. EPA
David Dugan, Environmental Scientist - U.S. EPA
John Wilk, Environmental Scientist - U.S. EPA

* Personnel from Interwaste Services Co. (ISCO) were contracted by BBD to collect split samples and observe EPA sampling activities.

Discussion

On June 2, 1988, a RCRA sampling inspection was conducted at Bayonne Barrel and Drum, located at 150 Raymond Boulevard in Newark, New Jersey. Two previous sampling inspections were attempted. However, due to an access denial on May 12 and inclement weather on May 19, those inspections were not completed. Access was denied on May 12 by BBD's attorney, Damon Sadita, after being on site for approximately one hour and actively engaged in sampling. EPA was informed by their attorney that investigative personnel (EPA) should not be on site. This arrangement was made as per an agreement with the Department of Justice in Washington, D.C., since the site was already in litigation. A second sampling visit was scheduled, after consent by EPA and BBD attorneys, exactly one week later on May 19, 1988. Due to excessive rain the previous 36 hours, sampling had to be postponed once again.

Site Description

Currently, BBD is an inactive drum reconditioning facility which has filed for bankruptcy under Chapter 11 and is only staffed by a few maintenance/security people. The plant has undergone some surficial cleaning/housekeeping which includes the arrangement of empty drums in orderly rows, grading of empty lots on the south side of the buildings, and removal of most equipment from the building interiors. In addition, the ash pile on the southwest corner of the property has been covered with a sheet of clear plastic. During EPA's initial attempt to sample, the ash pile was found uncovered. However, on a second sampling attempt, the contractor representing BBD had covered the ash pile with several rolls of clear sheet plastic. During the third and actual sampling inspection, the pile remained covered.

Even though the plant "appears aesthetically cleaner", there remain a few areas which appear grossly contaminated. The drum and ash storage room contains a large ash pile from incineration activities. Also, approximately 150 drums remain which contain ash or aqueous materials. A few drums had holes punched in their sides which allowed the contents to stain the surrounding floor space. A couple of drums had been inverted to prevent their contents from leaking and others were severely dented and/or crushed. Most drums contained ash which looked similar in nature to the ash pile in the middle of the room. See the attached photographs for illustrations. Approximate building locations and sampling sites are depicted in Figure 1. In addition, an ash pile remains in the courtyard between the incinerator and the furnace room building. The ash residue was multicolored, as shown in the attached photographs.

Sampling locations and methodology

In order to fulfill the objectives of this investigation, a total of seven predetermined locations were selected. The sampling network and rationale was based upon a previous sampling inspection by EPA (2/84) and new locations proposed by the HWCB during a presurvey walk-through conducted on April 15, 1988. Based upon this information, the following points were selected:

1 - Furnace room building
2 - Courtyard area
3 - Drum and ash storage room (near incinerator)
4 - Waste ash pile (near rows of drums)
5 - Oil separator trench
6 - Pump House (near oil separator trench)
7 - Underground tank (near toluene pump)

Approximate sample locations are depicted in Figure 1 which correspond to the sample numbering system above. The analyses requested included EP Toxicity (metals only), volatile organic analysis (VOA), non-volatile organic analysis (NVOA), PCB's, and also pH for aqueous samples. In addition, ignitability was analyzed on the drum sample containing an aqueous solution (sample # 112213).

The following is a list of sample identification numbers, corresponding sample locations, and descriptions of collection techniques:

Sample #112201 - This sample was collected from the floor of the furnace room building as depicted in picture #10. The ash sample was collected at random from several locations using a dedicated polypropylene scoop. The sample was then mixed in a stainless steel tray to form a composite sample, which was subsequently split for EPA personnel and the BBD contractor. The stainless steel tray was lined with new "Whatman Benchcoat" paper each time a sample for ash was collected to prevent cross contamination among different sampling locations.

Sample #112202 - Courtyard area ash sample collected at random using the same techniques as listed in sample #112201. Photographs #5 - 9 illustrate the sample location and collection techniques. Make special notice of the various colors encountered in the ash pile and sample collected.

Sample #112203 - Drum and Ash storage room ash sample collected in a manner identical to that listed in sample #112201. Level B personal protective equipment (PPE) was worn in this area due to the presence of hazardous organic vapors, as indicated by air monitoring equipment. Pictures #15-16 illustrate sampling technique and level of protective equipment required.

Sample #112204 - This sample number represents the "WEST" half of the waste ash pile near the drum storage area. An imaginary line was drawn through the ash pile to delineate an "EAST" and "WEST" half, for the purpose of sampling only. Figure 1 shows the relative location of the ash pile and illustrates the approximate boundary drawn to delineate the two halves. Photographs #17 and 19 illustrate the entire waste ash pile and sample collection in the "WEST" half, respectively. Level C PPE was worn during sample collection and compositing. Since the ash pile was covered with polyethylene plastic sheeting, holes were cut at random to enable sample collection. Samples were collected using a dedicated polypropylene scoop and throughly mixed in a stainless steel tray to form a composite sample.

Sample #112205 - Aqueous samples were collected from the oil separator trench using an I-Chem Series 300, one quart glass jar attached to an aluminum rod and clamp. Samples were poured directly from the glass jar into the respective sample containers.

Sample #112206 - Aqueous samples were collected from the pump house using the same techniques mentioned in sample #112205. Picture #1 illustrates the pump house and rod/clamp used for sample collection. A duplicate sample, #112211, was also collected at this location.

Sample #112207 - Aqueous samples were collected from an underground tank near the toluene pump. The sample was collected by taping an I-Chem Series 300 glass jar to an aluminum rod. The sample was collected in this manner due to the size of the access standpipe. In addition, the aluminum rod was shaped to fit the angled opening of the tank. See picture #3, which illustrates sampling of the underground tank.

Sample #112208 - In addition to collecting ash samples from the courtyard, aqueous samples were also collected as depicted in photgraph #4. Ponded water samples were collected in a low lying area adjacent to the courtyard ash pile and incinerator. Sample collection technique was by direct filling an I-Chem Series 300 glass jar and pouring into the appropriate sample containers.

Sample #112212 - This sample number represents the "EAST" half of the waste ash pile near the drum storage area. Photograph #18 depicts sampling the "EAST" half of the ash pile while wearing Level C PPE. Sample collection techniques were the same as in sample #112204. A series of random grab samples were collected using a dedicated polypropylene scoop and then composited in a stainless steel tray. After the sample was throughly mixed, the respective sample containers were filled.

Sample #112213 - An aqueous sample was collected from a "RED" drum in the drum and ash storage room as depicted in photographs #11 - 12. Level B PPE was worn due to the presence of high concentrations of unknown organic contaminants. The drum was sampled using a precleaned, dedicated teflon bailer. Pictures #13 - 14 indicate the particular red drum which was sampled and other drums in the immediate area. Note the condition of the drums in all four photographs. Most of the drums contained ash which looked similar in nature to the ash pile in the center of the room. However, some of the drums contained liquids of unknown content. Many of the containers were in very poor condition, some with holes and a few inverted to prevent their contents from leaking onto the floor.

All samples were collected in accordance with established EPA, Region II protocols. Standard EPA Chain of Custody procedures were employed throughout this inspection and a receipt for samples was signed by the facility representative (ISCO), as required under section 3007 (a) of RCRA. All samples collected by EPA were split with ISCO during this investigation (containers for BBD samples were provided by ISCO). EPA samples were analyzed at the Region II laboratory in Edison, New Jersey.

Results of Analyses

The results obtained from the samples collected during this investigation are presented in the following tables: Volatile Organics GC/MS scan (Table 1), Non-volatile Organics GC/MS scan (Table 2), and EP TOX Metals (Table 3).

Table 1 presents the volatile organic compounds and concentrations that were detected. The results indicate the presence of volatile organics in all samples collected. Exceptionally high concentrations of volatile organic compounds were found in samples #112212 and #112213. Concentrations ranged from 490 ug/l of trichloroethylene to 10,000,000 ug/l of xylene in those samples.

Table 2 presents the non-volatile organics/PCB compounds and concentrations that were detected. Very high concentrations of non-volatile organics were found in the ash samples, as presented in the attached tables, pages 2a - 2b. In addition, PCB's were found in sample #112212 at 115,400 and 293,970 ug/l for Aroclor 1248 and 1254, respectively. High concentrations of non-volatile organics were also found in the drum sample, #112213.

Table 3 presents the results of analyses for the hazardous waste characteristic of EP Toxicity (metals). The maximum concentration allowed for cadmium (1.0 mg/l) was exceeded in three of the samples collected (#112201, 112203, and 112204). All other EP Toxicity metals contaminants were below the maximum limit allowed, as presented in Table 3.

Aqueous samples were analyzed for pH, and in addition, ignitability analysis was performed on the drum sample. Results of these analyses show that none of the samples analyzed met the criteria of corrosivity or ignitability, as per 261.21 and 261.22. Results are presented below:

Characteristic of Corrosivity

Sample #	ph (SU)
112205	7.37
112206	6.59
112207	6.28
112208	6.70
112213 (drum)	10.9

Characteristic of Ignitability

Sample #	Flash point
112213	> 145°F

Findings and Conclusions

Based upon the sampling results of this investigation and a visual inspection of the site, Bayonne Barrel and Drum is in violation of existing RCRA and TSCA regulations. Analytical results indicate that the waste ash pile, drum and ash storage room ash, and furnace room ash are a RCRA hazardous waste in accordance with 40 CFR Part 261.24. The ash exhibits the characteristic of EP Toxicity for cadmium (D006).

Results of PCB analyses show concentrations for Aroclor 1248 and 1252 to be 115 and 293 mg/l, respectively. This is a violation of TSCA regulations 40 CFR Part 761.60.

The waste ash pile was still in violation of 40 CFR Part 265, Subpart L (waste piles) during the initial site visit on May 12, 1988. The pile was subsequently covered by sheet plastic on May 19, 1988. However, a containment system to prevent and collect run-off or eliminate a discharge to groundwater does not exist.

The drum and ash storage room contained many drums, approximately 100-150, which were not marked as a hazardous waste and were apparently stored in excess of 90 days.

In addition, numerous organic compounds were found throughout the site in varying concentrations. All results are listed in Tables 1-3.

TABLE 1
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

Ash samples

PARAMETER/SAMPLE#	#112201	#112202	#112203	#112204	#112212
Benzene					
Carbon Tetrachloride			28 M		
Chlorobenzene			540 M		
1,2-dichloroethane					
1,1,1-trichloroethane	96 M		340 M		64 M
1,1-dichloroethane					
1,1,2-trichloroethane					680 M
1,1,2,2-tetrachloroethane					
Chloroethane					
Chloroform		28 J	60 M		24 M
1,1-dichloroethylene					
1,2-trans dichloroethylene					
1,2-dichloropropane					
1,3-dichloropropylene					
Ethylbenzene	140 M	570	1500	100 M	5200
Methylene chloride					
Methyl chloride					
Methyl bromide					
Bromoform					
Dichlorobromomethane					
Chlorodibromomethane					
Tetrachloroethylene		80 M	1200	140 M	1300
Toluene	310 M	1300	2700	200 M	12,000
Trichloroethylene	82 M	46 M	550	110 M	490
Vinyl chloride					
Xylene		1200	3200		4600
Styrene					2500

All concentrations in ug/kg.
M = above the detection limit, but below the level of quantification
J = estimated value

TABLE 1
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

Aqueous samples

PARAMETER/SAMPLE#	#112205	112206	Dup. 112211	#112207	#112208	#112213
Benzene			4.4			92,000
Carbon Tetrachloride						
Chlorobenzene		9.4	7.3			78,000
1,2-dichloroethane						
1,1,1-trichloroethane		5.2	4.3			
1,1-dichloroethane		11	8.8			
1,1,2-trichloroethane		1.3M	1.0M			
1,1,2,2-tetrachloroethane						
Chloroethane						
Chloroform	2.6 M	1.6	5.5	10		
1,1-dichloroethylene						
1,2-Trans dichloroethylene	3.7 M	55	41	2.3		
1,2-dichloropropane						
1,3-dichloropropylene						
Ethylbenzene		130	110	1.8 M	14 M	1,200,000
Methylene chloride						
Methyl chloride						
Methyl bromide						
Bromoform						
Dichlorobromomethane						
Chlorodibromomethane.						
Tetrachloroethylene		2.2M	1.6M			62,000
Toluene	2.6 M	660	540	0.4 M	600 J	2,400,000 J
Trichloroethylene		4.5	3.4	0.5 M		
Vinyl chloride		18	12			
Xylene	5.0 M	140	220	4.1 J	60 J	10,000,000
4-methyl-2-pentanone		21	17			
Styrene			38			

All concentrations in ug/l.
M = above the detection limit, but below the level of quantification
J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

Ash samples

PARAMETER/SAMPLE #	112201	112202	112203	112204	112212
2-chlorophenol					
2-nitrophenol					
phenol		2350 J	104,400 J		
2,4-dimethylphenol			2,350 M		
2,4-dichlorophenol					
2,4,6-trichlorophenol					
p-chloro-m-cresol					
2,4-dinitrophenol					
4,6-dinitro-o-cresol					
pentachlorophenol					
4-nitrophenol					
1,3-dichlorobenzene					
1,4-dichlorobenzene				140 M	
1,2-dichlorobenzene		330 M	5,780 M	400 M	
hexachloroethane					
hexachlorobutadiene					
1,2,4-trichlorobenzene	490 M	620 M	49,200 J	2820 J	
napthalene	2600 J	9910 J	15,050 J	6430 J	1210 M
bis(2-chloroethyl) ether					
bis(2-chloroethoxy) methane			5,080 M		
isophorone		6730 J	5,060 M	1060 M	
nitrobenzene					
cenaphthylene		1250 M	700 M	2850 M	
acenapthene		130 M	3,700 M	450 M	
fluorene		1520 M	7,375 J	490 M	
hexachlorobenzene					
phenanthrene	1140 M	1880 J	37,380 J	3080 M	220 M
anthracene	230 M	1850 M	3,550 M	1240 M	
fluoranthene	650 M	2490 M		1970 J	140 M
aniline	160 M				
2-methyl napthalene	1090 M	3370 J	17,180 J	4490 J	460 M
2-methyl phenol			9,600 J		
4-methyl phenol			20,000 J	1140 J	
biphenyl			20,000 J		
dimethyl diphenyl urea			37,200 J	7200 J	
n-nitrosodiphenylamine				770 M	180 M
3,3-dichlorobenzidene				520 M	
benzoic acid				5710 J	
hexane diisocyanate				12,100 J	

All concentrations in ug/kg.
M = above the detection limit, but below the level of quantification
J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANIC GC/MS SCAN
JUNE 2, 1988

Ash samples

PARAMETER/SAMPLE#	#112201	#112202	#112203	#112204	#112212
dimethyl phthalate		230 M	1750 M	170 M	
diethyl phthalate	380 M	890 M	102,930 J	1100 M	
di-n-butyl phthlate	5200 J	35,920 J	90,150 J	6830 J	1980 M
butyl benzyl phthalate	2500 M	8,070 J	67,530 J	1290 M	1780 M
di-n-octyl phthalate	340 M		5850 M		50 M
bis(2-ethylhexyl) phthalate		51,060 J	259,230 J	39,960 J	
pyrene	660 M	480 M	7500 J	3610 J	200 M
chrysene	160 M	630 M	1950 M	2070 M	
1,2-benzanthracene	110 M	400 M	1055 M	1850 M	
4-chlorophenyl phenyl ether					
benzo(a) pyrene		2450 M			
1,12-benzoperylene					
benzyl alcohol		710 M	24,730 J	2570 J	
2-methyl alcohol					
dibenzofuran	250 M	750 M	3450 M	360 M	
toluene diisocyanate		340,000 J			
phthalic anhydride		56,000 J			1500 J
naphthalene isocyanate		67,000 J			
2,6 dinitrotoluene					
2,4-dinitrotoluene				120 M	
1,2-diphenylhydrazine		1560 M			110 M
3,4-benzofluoranthene	280 M	2950 M			
1,12-benzofluoranthene					
dihydrotrimethylphenyl ind.				33,000 J	
phenol,2,4-bis(1,1-dimethyl)				4590 J	
ylangene			12,500 J		
homosolate			123,000 J	5700 J	
cholestanol					
PCB-1016					
PCB-1221					
PCB-1232					
PCB-1242					
PCB-1248					293,970
PCB-1254					115,400
PCB-1260					

All concentrations in ug/kg.
J = Estimated value.
M = Above the detection limit, but below the level of quantification.

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANICS GC/MS SCAN
JUNE 2, 1988

queous samples

PARAMETER/SAMPLE #	#112205	112206	Dup. 112211	#112207	#112208	#112213
2-chlorophenol						
2-nitrophenol						
phenol	1.3 M		3.2 M		1.4 M	
2,4-dimethylphenol		7.3	11.2 M	0.2 M	6.2	
2,4-dichlorophenol				1.1 M		
2,4,6-trichlorophenol						
p-chloro-m-cresol						
2,4-dinitrophenol						
4,6-dinitro-o-cresol						
pentachlorophenol						
4-nitrophenol						
1,3-dichlorobenzene	1.1 M	0.4 M				2610
1,4-dichlorobenzene	4.2 M	1.5 M		1.6 M		34,200
1,2-dichlorobenzene	1.2 M	1.6 M		0.2 M		167,140
hexachloroethane						
hexachlorobutadiene						
1,2,4-trichlorobenzene	0.8 M	0.5 M			0.2 M	393
napthalene		11.7	14.7 M			28,380
bis(2-chloroethyl) ether						
bis(2-chloroethoxy) methane						
isophorone		2.4			2.8	109
nitrobenzene						
.cenaphthylene					2.5 M	
acenapthene						137
fluorene		1.3 M	7.8 M		0.5 M	
hexachlorobenzene						
phenanthrene	0.3 M	2.7 M	18.7 M	0.2 M	2.8 M	115 M
anthracene					1.6 M	
fluoranthene		0.8 M		2.2 M	4.2	
aniline						
2-methyl napthalene			11.7 M			61,080 J
2-methyl phenol	0.8 M	20.1 J	18.5 M			
4-methyl phenol		11.3 J	8.0 M		1.9 M	
benzoic acid			54.3 M		6.2	
methylbenzene sulfonamide	179 J				75 J	
methyl ethylbenzene		25.3 J				

All concentrations in ug/l.
M = above the detection limit, but below the level of quantification
J = estimated value

TABLE 2
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
NON-VOLATILE ORGANIC GC/MS SCAN
JUNE 2, 1988

\queous samples

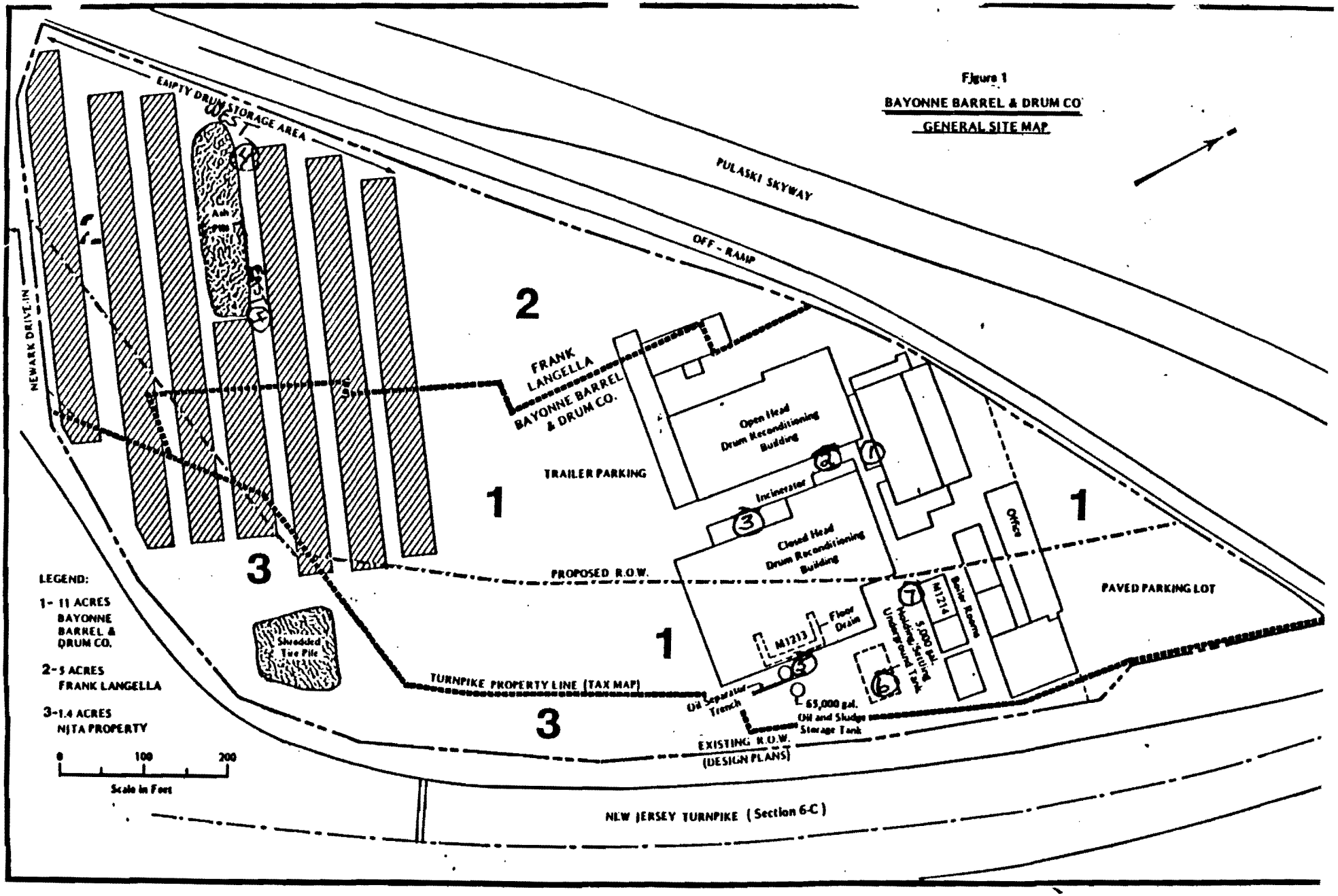
PARAMETER/SAMPLE#	#112205	112206	Dup. 112211	#112207	#112208	#112213
dimethyl phthalate		0.4 M				
diethyl phthalate						
di-n-butyl phthlate		7.2				
butyl benzyl phthalate	1.1 M	10.6 J	46.3J		7.1 M	
di-n-octyl phthalate		1.6 M	3.7M		0.7 M	
bis(2-ethylhexyl) phthalate	1.4 M	13.5 J	106.8J	4.7 J	21.7 J	
pyrene		1.3 M	7.9M	0.1 M	6.5	
chrysene	0.1 M	0.2 M	1.1M		1.8 M	
1,2-benzanthracene		0.1 M	0.5M		0.7 M	
4-chlorophenyl phenyl ether						
benzo(a) pyrene	0.2 M	0.2 M			2.8	
1,12-benzoperylene		0.5 M			4.3	
benzyl alcohol		5.3 J	3.1M			
2-methyl alcohol						
dibenzofuran		0.8 M	2.0M		0.4 M	567
2,6 dinitrotoluene						
2,4-dinitrotoluene		0.6 M				597
1,2-diphenylhydrazine	1.7 M	2.0 M		0.1 M		26.8 M
3,4-benzofluoranthene		0.1 M			2.3 M	
11,12-benzofluoranthene		0.2 M			2.5 M	
n,n-dimethyl n,n-diphenyl urea	52 J					
trimethylbenzene isomers		58.4 J				
trimethyl-1,3 pentanediol		26.3 J				
n-ethyl-4-methylbenzene sulf.		39.3 J				
tetramethyl butylphenol					27 J	
methyl napthalene isomers		5.5 M			1.4 M	
ylangene						
homosolate						
cholestanol		96.6 J	712 J	71 J		
PCB-1016						
PCB-1221						
PCB-1232						
PCB-1242						
PCB-1248						
PCB-1254	0.403					
PCB-1260						

All concentrations in ug/l.
J = Estimated value.
M = Above the detection limit, but below the level of quantification.

TABLE 3
BAYONNE BARREL AND DRUM, NEWARK, NEW JERSEY
EP TOX METALS DATA
JUNE 2, 1988

SAMPLE #/PARAMETER	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
#112201 (ash)	--	.01 M	2.84	1.16	--	--	4.72	.03 M
#112202 (ash)	.048M	.02 M	1.86	0.257	--	--	1.06	.02 M
#112203 (ash)	--	.04 M	3.53	2.84	.36 M	.15	1.69	.53
#112204 (ash)	--	.04 M	5.02	2.72	--	.0007 M	1.67	.04 M
#112205 (liq)	--	.01 M	0.22M	.027M	--	.0002 M	.1 M	--
#112206 (liq)	.012 M	.02 M	0.45M	--	--	.0003 M	--	.02 M
#112207 (liq)	.013 M	.01 M	--	--	--	--	--	.01 M
#112208 (liq)	--	.01 M	0.48M	--	--	--	--	.02 M
#112211 (liq)	--	.01 M	0.28M	--	--	.0003 M	--	.01 M
#112212 (ash)	--	.01 M	0.846M	.243	--	--	.57	.01 M
#112213 (liq)	--	1.0 M	.62M	--	1.6 M	.004 M	--	2.0 M
Maximum concentration allowed for EP TOX	5.0	5.0	100	1.0	5.0	0.2	5.0	1.0

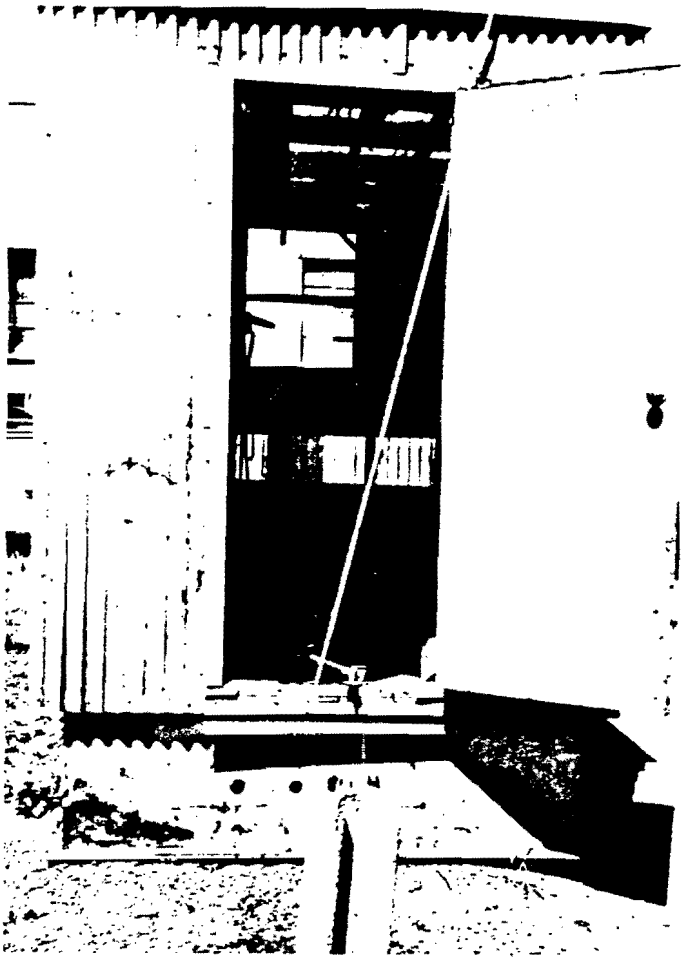
Sample #112211 was a duplicate to sample #112206.
All concentrations expressed in mg/l.
M = above the detection limit, but below the level of quantification.



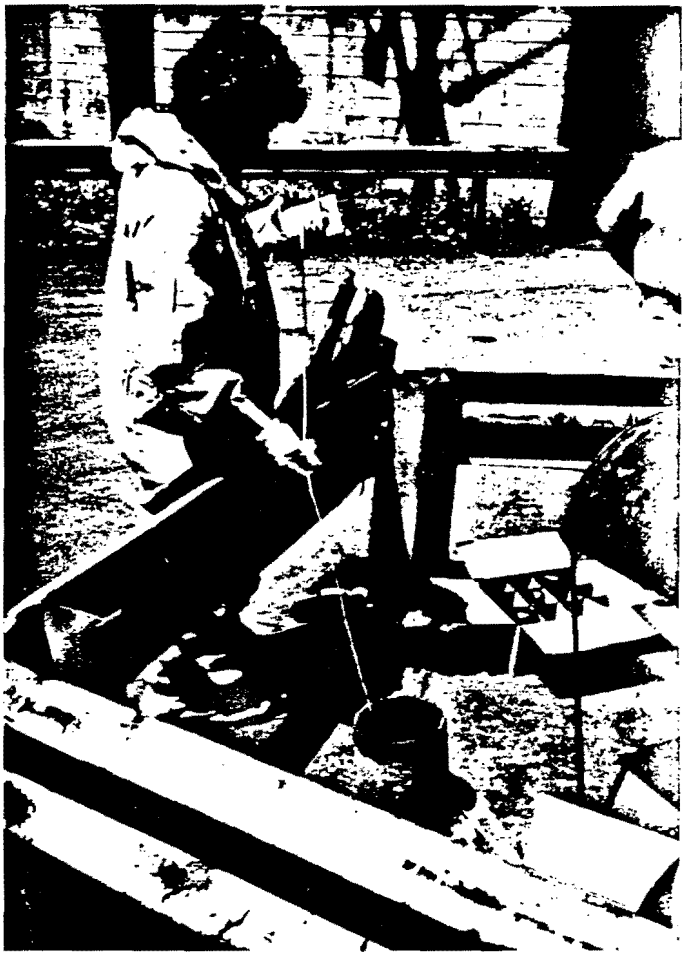
Sampling locations are approximate, as indicated by numbers in colored areas.

Map taken from Louis Berg and Assoc. report dated 12/84 for NJ Turnpike Auth.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#1. Pump house sampling location. Liquid samples collected at this location. See item #6 on attached site map.



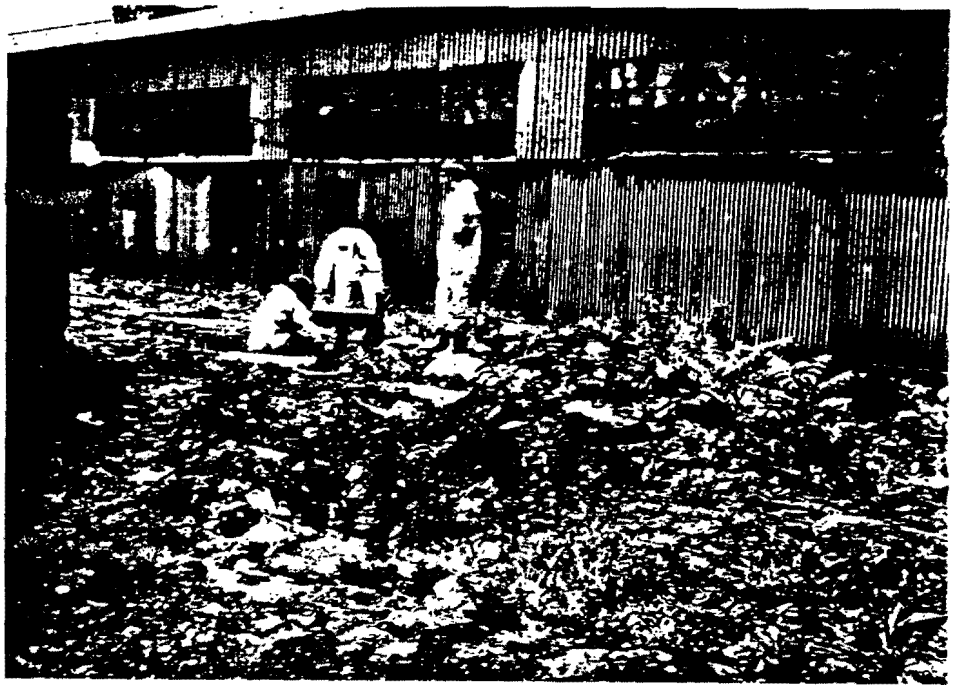
#2. Underground tank, item #7 on attached site map. Measuring total depth of tank.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

#3. Sampling underground tank.

#4. Collection of aqueous samples from courtyard area. Item #2 on attached site map.

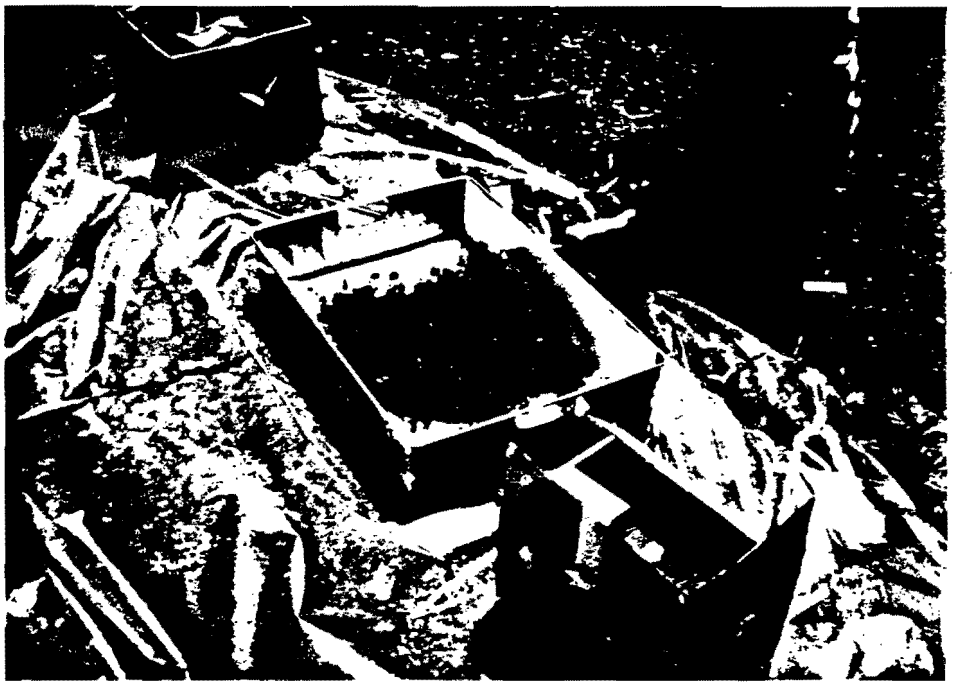
BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#5. Collection of random, grab composite ash sample from courtyard area.

#6. Close-up of ash pile in courtyard, similar to photo #5.

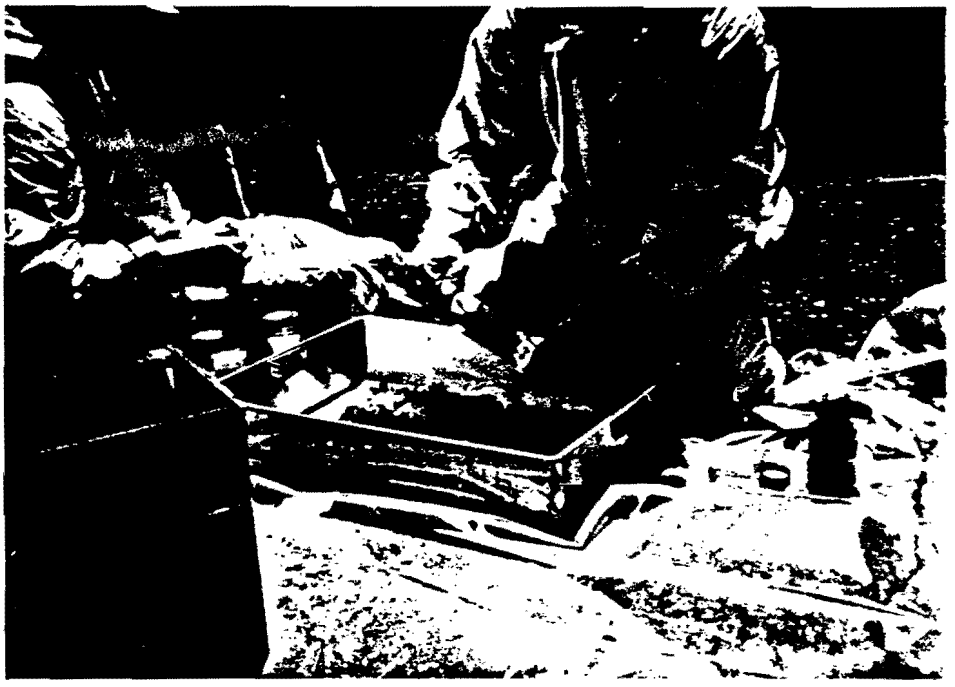
BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#7. Ash from courtyard area ash pile, ready for compositing.

#8. Compositing ash sample from courtyard area, prior to filling sample containers.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401



#9. Filling POA vial with ash from courtyard area, item #2 on the attached site map.

#10. Furnace room building, item #1 on the attached site map. Combination ash/soil samples were collected at random from this location.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

#11. Sampling "red" drum in the drum and ash storage room; item #3 on the attached site map.

#12. Overview of some of the many drums in the drum and ash storage room. Note condition of drums and old labels.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

#13. "Red" drum which was sampled in the drum and ash storage room.

#14. Another view of drums in the drum and ash storage room.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

#15. Sampling the ash pile in the drum and ash storage room. Note presence of drums in background.

#16. Opposite view of ash pile in drum and ash storage room.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

EAST

WEST

#17. Waste ash pile, item #4 on the attached site map. An imaginary line was drawn through the ash pile to delineate an EAST and WEST half.

#18. Sampling East half of the ash pile. Samples were collected at random and manually composited in a stainless steel tray.

BAYONNE BARREL AND DRUM
Newark, N.J. June 2, 1988
NJD009871401

#19. Sampling West half of ash pile; item #4 on the attached site map.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: NOV 05 1991

SUBJECT: Request for ESD Sampling and Analytical Assistance

FROM: Richard C. Salkie, Associate Director for Bruce Jorgensen (Gn)
Removal and Emergency Preparedness Programs

TO: Richard D. Spear, Chief
Surveillance and Monitoring Branch

The purpose of this memorandum is to request the technical assistance of the Environmental Services Division, Surveillance and Monitoring Branch (SMB) in support of sampling activities for the Bayonne Barrel and Drum site in Newark, New Jersey.

The State of New Jersey Department of Environmental Protection and Energy (NJDEPE) has requested that EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials at the site. As part of the removal assessment to determine whether the site warrants a CERCLA Removal Action, several vertical tanks and a number of drums need to be accessed and sampled.

The scope of work required of SMB is to access the three vertical tanks from the top, collect representative samples if material is present, and sample five to ten drums. The material in the tanks is expected to be phased. On-site air monitoring and field analyses, and off-site laboratory analyses will be arranged for by the Removal Program's TAT contractor.

A site visit is being arranged for November 7th to ascertain the best approach for accessing the tanks. Sampling assistance is requested for either the week of November 10th or 17th. If you have any questions please contact Nick Magriples at ext. 6930.

cc. B. Metzger, ESD-DIR
J. Ciancia, ESD-SMB-SMS

JC
NYC
8/12

ACTION MEMORANDUM

DATE:

SUBJECT: Confirmation of Verbal Authorization and Ceiling Increase to Conduct a CERCLA Removal Action at the Bayonne Barrel and Drum Site, Newark, New Jersey

FROM: Joseph V. Cosentino, On-Scene Coordinator
Removal Action Branch, Technical Support Section

TO: William J. Muszynski, P.E.
Deputy Regional Administrator

THRU: Kathleen C. Callahan, Director
Emergency & Remedial Response Division

Site ID No.: 9J

I. PURPOSE

On September 30, 1991, the United States Environmental Protection Agency (EPA), Removal Action Branch, received a request from the State of New Jersey Department of Environmental Protection (NJDEP) to evaluate the Bayonne Barrel and Drum Site (Site) for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removal action consideration.

Until recently, EPA's Resource Conservation and Recovery Act (RCRA) program had been the lead program for the Site. However, after several attempts to litigate and negotiate a responsible party and/or third party closure of the facility proved to be unsuccessful, the Site was referred for removal action consideration. A fire at the facility on July 8, 1994 prompted the emergency response documented in this Action Memorandum.

The purpose of this Action Memorandum is to document the approval of funds and to request additional monies for the emergency removal action initiated to remediate the threats to human health and the environment present at the Site. Verbal funding authorization was received from Kathleen Callahan, Director of the Emergency and Remedial Response Division (ERRD) on July 14, 1994. A total project ceiling of $200,000, with a mitigation ceiling of $150,000, was authorized. In order to

ERR-:RAB NAME:BAYONNE	: INIT:ss : DATE:08/09/94	CONCURRENCES	DISK:A:M. #9	: FILENAME:BAYONNE B.			
SYMBOL: ==> ERRD-RAB-TSS	ERRD-RAB-TSS	ERRD-RAB	ERRD-ADREPP	ERRD	ORC-NJSUP	ERRD-D	DRA
SURNAME:==> COSENTINO	WITKOWSKI	ZACHOS	SALKIE	HERNANDEZ	KARLEN	CALLAHAN	MUSZYNSKI
DATE: ==> 8-8-94	8/8/94	8/8/94	8/12/94				

EPA FORM 1320-1 (12-70) 200001 OFFICIAL FILE COPY

complete this phase of the removal action, an additional $935,000 is needed of which $500,000 is for mitigation contracting. The new project ceiling would be $1,135,000 of which $650,000 comes from our Regional allowance.

This Action Memorandum documents that a CERCLA removal action is necessary to contain, secure, stabilize, inventory, sample and identify the hazardous wastes and substances found at the Site.

This site is not on the National Priorities List (NPL), nor are there any nationally significant or precedent setting issues associated with this removal action.

II. SITE CONDITIONS AND BACKGROUND

The Comprehensive Environmental Response, Compensation, and Liability Information System ID Number for this time-critical removal action is NJD009871401.

A. Site Description

1. Removal site evaluation

A Removal Site Evaluation (RSE) was completed for the Site in January, 1992. The RSE concluded that CERCLA hazardous substances had been released into the environment at the Site which is a facility. In conjunction with the RSE, an Agency for Toxic Substances and Disease Registry (ATSDR) Health Consultation was requested. The ATSDR Consultation is attached as Appendix 1 and stated that conditions at the Site pose a potential public health threat to persons on the Site via direct contact.

At the time of the RSE a third party was providing site security, lighting and the services of an environmental consultant while conducting negotiations for the sale of the property. The sale of the property could have resulted in a voluntary site cleanup as a condition of the transaction. The NJDEP would have been able and willing to oversee those activities under an administrative order.

The RSE recommended that should negotiations for the sale of the property fail to result in a timely and appropriate cleanup, a CERCLA removal action would be warranted.

Negotiations for the sale of the property appear to have failed. Site security and lighting were discontinued when Chemical Transport Incorporated, a lessee at the Site, discontinued operations at the Site.

A CERCLA removal action is now warranted to stabilize the Site since there is no other mechanism available to address the immediate concerns and threats presented by the Site. The areas

of immediate concern are the ash piles, contaminated soil near the incinerator, drums, material remaining in the tanks, and site access.

On July 8, 1994, a fire occurred at the Site destroying the former offices of Bayonne Barrel and Drum and an adjoining building. According to the Newark Fire Department (NFD), the fire is believed to have been started by vagrants that were inhabiting the building. It is assumed that because the fire did not impact any of the known waste or waste storage areas at the Site, EPA was not notified of the incident. However, several drums can be seen in the fire debris and rubble.

On July 14, 1994, an inspection of the Site revealed that site security had been terminated; no tenants were occupying the facility and access to the Site was essentially unrestricted. The Site was accessible throughout due to openings in the fence. A scavenger was seen sifting through the rubble for, scrap metal, at the time of the site visit. The main gate, noted to be closed and secured with a lock and chain upon arrival, was subsequently opened by the scavenger. An empty box trailer in one of the buildings was determined to be stolen and reported to the Newark Police Department.

The ash pile and drums previously contained in a building are now exposed and visible from the outside since a makeshift plywood wall has collapsed. The drums, approximately 300-350, appear to be in a deteriorated condition. Several drums found in the empty drum storage area, at the rear of the property, are leaking an oil-like substance to the ground surface. The incinerator area is flooded and appears to have been accessed by a heavy vehicle. The structural integrity of one of the partially filled above ground tanks is questionable. Ground stains were noted at it's base, manhole, and associated piping. An underground storage tank is open and discharging a substance to the ground surface. The main tire pile, at the southeastern edge of the facility, has increased substantially in size. Evidence of illegal dumping is apparent throughout the Site. Several piles of what appears to be demolition/construction debris, a dump trailer full of soil and debris, a flat bed trailer with several drums containing an unknown material, and smaller piles of tires are present at the Site.

2. Physical location

The Site, located at 150-154 Raymond Boulevard in Newark, Essex County, New Jersey, occupies approximately 15 acres of Block 5002, Lots 3 and 14. The Site, formerly the location of a drum reconditioning facility, is bounded by Raymond Boulevard and an exit ramp from Routes 1 and 9 to the north and west, an entrance ramp to the New Jersey Turnpike to the east and south, and the parking lot of a movie theater to the southwest (see Figure 1). The nearest residential area to the Site is approximately one-half mile away.

3. Site characteristics

The Site operated as an unlicensed treatment storage and disposal facility from the early 1940's until the early 1980's when the company filed for bankruptcy under Chapter 11.

According to an EPA Environmental Services Division (ESD) report, at the time the facility was operating, drum cleaning operations involved both closed-head and open-head drums. In closed-head drum cleaning, chains and a caustic solution were used to wash out previous material in the drums. The spent solution drained through an oil-water separator into a 5,000 gallon underground holding/settling tank and was then pumped into a 60,000 gallon above ground holding/settling tank. The liquid was decanted to the sewer under a permit to the Passaic Valley Sewage Commission. Open-head drums were placed on a conveyor belt and moved through the incinerator, which burned the residue inside the drums. This residue material was collected in two subsurface holding/settling tanks adjacent to the incinerator. Approximately 40,000 pounds of incinerator ash and sludge were reportedly generated monthly.

All of the original buildings which existed during the facility's operations remain standing, except for the former offices, which were destroyed by the recent fire. Although the walls of buildings impacted by the fire remain standing, the structural integrity is in doubt.

There are three vertical storage tanks, underground storage tanks, ash piles (approximately 1,600 cubic yards), shredded tires, 200-250 drums and an ash pile in one of the buildings, and an estimated 45,000 reportedly RCRA empty drums in the field, some of which contain materials. Many of the drums containing material are open, severely deteriorated, and improperly stored. Several have leaked all or a portion of their contents. A number of drums were confirmed to be leaking on July 14, 1994. There are ground stains beneath the valves and piping of the vertical tank known to contain material. The ash piles, which are uncovered, contain PCB contaminated organic and inorganic substances.

Site access is essentially unrestricted, although a fence surrounds the Site. Numerous holes have been cut in the fence and gates have been removed. Vagrants inhabiting portions of the former offices of Bayonne Barrel and Drum, according to the NFD, may have been responsible for the July 8, 1994 fire. During EPA's site visit on July 14, 1994, a person was found collecting scrap metal from the fire debris. This individual was later seen opening the gate by smashing or cutting the lock and chain.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

An NJDEP site inspection report dated March 3, 1982 indicated the presence of an ash pile. Samples collected from the pile were

found to be ignitable. Additionally, halogenated organic compounds were detected in the pile and its leachate at 3,450 ppm and 2,579 ppm, respectively.

In 1985, samples collected by a consultant from the area of the incinerator feed indicated petroleum hydrocarbons (16,300 ppm) and PCBs (320 ppm) at a depth of one foot. Except for lower values of PCBs, similar values were detected at the output end of the incinerator. Dioxin was not detected in concentrations greater than 0.32 ppb.

Samples were also collected from the wastewater treatment area, which indicated contaminated petroleum hydrocarbons, ranging from 5,920 ppm to 59,000 ppm, from the surface to near ground water.

On February 17, 1984, EPA conducted a RCRA sampling inspection at the Site. Analysis of samples collected from the ash piles at the rear of the facility and in the area around the incinerator revealed the following maximum concentrations:

CERCLA Hazardous Substances	Highest Concentration Detected (mg/kg)
1,1,1-trichloroethane	7
1,1-dichloroethane	0.5
1,1,2-trichloroethane	5
ethyl benzene	65
methylene chloride	10
tetrachloroethylene	2.6
toluene	320
trichloroethylene	8.1
vinyl chloride	1.6
arochlor 1248	67.2
arochlor 1254	117.5
cadmium	160
chromium	3,300
copper	2,900
lead	21,000
mercury	12
zinc	3,800

mg/kg = milligrams per kilogram (ppm)

Additionally, the ash exhibited the RCRA Characteristic of E.P. Toxicity for lead.

On June 2, 1988, EPA conducted another RCRA inspection at the Site. Samples collected from the ash piles, in general, revealed similar results to those presented above. Additionally, the ash was found to be E.P. Toxic for cadmium. PCBs were detected at 293 mg/kg. Analysis of a sample collected from a drum containing liquid (stored in the drum and ash storage building) was found to contain the following concentrations:

CERCLA Hazardous Substance	Highest Concentration Detected (mg/l)
benzene	92
chlorobenzene	78
ethyl benzene	1,200
tetrachloroethylene	62
xylene	10,000
toluene	2,400
1,3-dichlorobenzene	2.6
1,4-dichlorobenzene	34.2
1,2 dichlorobenzene	167
naphthalene	28.3

mg/l = milligrams per liter (ppm)

On November 13, 1991, an On-Scene Coordinator (OSC), Technical Assistant Team (TAT) and representatives from the EPA ESD inspected the three aboveground tanks at the Site in order to determine if they contained any materials. Table 1 lists the tanks, their dimensions, any distinguishing features and the volume of material present. Tank 3 contained an amber colored product. Upon hazcatting, it was found to be combustible. An HNU reading of 80 units was detected from the sample.

The volume of ash material and the number of drums containing material that was noted in previous reports were verified. Most of the drums in the building appear to contain ash. Of the drums in the field, approximately twelve, appear to contain some material, mostly less than one-third of a drum.

TABLE 1

	Height (ft)	Diameter (ft)	Volume (gal)	Color
Tank 1	26	8	empty	brown
Tank 2	54	12	empty	white/yellow
Tank 3	23	11	1,140	white

On November 19, 1991 the OSC and TAT collected two composite samples of the ash from the building and the courtyard near the incinerator. The samples were sent to a private laboratory for dioxin and furan analysis. Analytical results revealed 94 parts per trillion (ppt) of 2,3,7,8-TCDD in one sample and a toxicity equivalent factor (TEF) of 973 ppt in the other sample. The TEF is a weighted, total concentration taken from the various dioxin and furan isomers, relative to 2,3,7,8-TCDD.

Air monitoring conducted in the abandoned buildings, the area of the incinerator, the field near the stacked drums and at random spots on the property did not detect anything above background levels, except as noted above.

All of the materials listed above, except for petroleum hydrocarbons, are CERCLA designated Hazardous Substances, as listed in 40 CFR Table 302.4. The analytical data presented

above is a summary of the most significant data available from the aforementioned reports.

The mechanism for past releases at the Site appears to have been spills, poor housekeeping practices, illegal disposal practices and unpermitted wastewater discharges. Past practices of concern at this facility has included: disposal of chemicals directly to the ground, improper drum storage, and incineration of hazardous wastes, including chlorinated hydrocarbons.

The mechanism for future releases to the soil and air include deterioration and/or disturbance of the containers present at the Site. Contaminants from the soil and ash piles could become airborne if disturbed.

5. NPL status

Bayonne Barrel and Drum is not an NPL site.

The ATSDR has provided a health consultation for the Removal Program in order to determine if contaminants detected on-site are a public health concern (see Appendix 1). Their conclusion is that the Site could pose a health threat to vagrants, future workers or others engaged in activities on-site that come in contact with or disturb the ash piles. The Site also poses a fire and/or explosion threat.

B. <u>Other Actions to Date</u>

1. Previous actions

EPA's RCRA program had been involved with the Site for a number of years. However, several attempts to litigate and negotiate an owner/operator and/or third party site closure/clean-up proved to be unsuccessful.

There have been no other previous federal or private actions taken to mitigate the threats presented as a result of the Site's operation.

In June and July of 1992, box trailers containing drums of material in excess of residual amounts and displaying the RCRA characteristic of ignitability were abandoned at the Site. EPA conducted a removal action in March, 1993 to mitigate the threats presented by the material contained in the abandoned trailers. It was determined that the trailers were not associated with the former activities of Bayonne Barrel and Drum.

2. Current actions

A CERCLA emergency removal action was initiated at the site on July 14, 1994 to contain, secure, stabilize, inventory, sample and identify the hazardous wastes and substances found at the site. Verbal authorization to initiate this action was provided by the ERRD Director on July 14, 1994. Currently, there are no other federal or private actions taking place at the Site.

C. State and Local Authorities' Role

1. State and local actions to date

The NJDEP sent a letter to the ERRD requesting that EPA stabilize the Site by inventorying, characterizing and disposing of the abandoned materials at the Site.

Until recently, the Site had been handled as a developer site under an NJDEP Administrative Order on Consent (AOC). However, the developers decided that it was not feasible to develop the Site and subsequently declined to initiate the removal action.

2. Potential for continued state/local response

Other than discussed above, there are no other state/local actions taking place at the Site. The State and local government agencies are not able to take timely response actions. The county government does not have the necessary resources to conduct the required cleanup actions. Should the sale of the property take place, the NJDEP would take responsibility of the Site, as previously planned.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Based on the RSE's findings, the conditions at the Site meet the requirements of Section 300.415(b) of the National Contingency Plan (NCP) for the undertaking of a CERCLA removal action. Factors from Section 300.415(b)(2) that support conducting a removal action at the Site include:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants, or contaminants;

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

(vi) Threat of fire or explosion; and

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release.

No other government entity can address the Site within an appropriate time frame. As a result, the NJDEP has formally requested EPA to undertake a removal action at this site.

A. Threats to Public Health or Welfare

Due to the many CERCLA listed hazardous substances that are currently present at high concentrations in the facility, there is a potential for exposure to anyone that enters the building and to the nearby persons that either work or reside in the affected area. Section II.A.4 discusses the releases and potential releases that can occur at the Site.

The main threats present at the Site are exposure through direct human contact with the ash piles, the contents of the drums, and the soils. The threat of a potential fire exists due to vandalism and the activities of vagrants and scavengers. In addition, the concentrations of organic solvents detected in one of the drums stored within the building presents the potential for fire. Although a fence surrounds the Site, there are holes cut in several areas and gates have been removed that allow for access to the Site. Additionally, the portion of the fence that runs along the New Jersey Turnpike entrance ramp is only four feet high.

The January 8, 1992 Health Consultation conducted by ATSDR concluded the following:

1. The site could pose a health threat to vagrants, future workers, or others engaged in activities on-site that come in contact with or disturb the ash. Another concern is the potential for youngsters being exposed to contaminated dust that has been carried home on the boots and clothes of workers.

2. Drums containing high levels of VOCs may pose a fire, explosion, or physical hazard.

3. Migration of site related contaminants by wind erosion or other environmental transport mechanisms to nearby businesses or residences in quantities sufficient to pose a health threat are unlikely.

4. The fence surrounding the site does not adequately restrict access to the site.

Abandoned sites are typically attractions for children and vagrants. Therefore, populations most likely to be exposed are vagrants who may enter through breaches in the fence to occupy abandoned buildings, future workers employed for cleanup activities on-site, or for future commercial operations. For those who might enter the site, exposures to contaminated soil/ash could occur through inhalation, ingestion or through direct dermal contact. In addition to on-site exposures, future workers or those involved in cleanup activities could also inadvertently carry contamination on their clothes and shoes to their homes exposing other family members.

PCB are a group of organochlorine chemicals that because of their toxicity characteristics in animals and in humans are often a

concern at hazardous waste sites. Maximum levels of total PCBs identified during the last sampling were measured in the ash at a concentration of 408 ppm. Toxicologic data and potential exposure scenarios suggest that it is unlikely that any short-term (2 weeks or less) or intermediate duration (1 year or less) exposures to PCB alone by any route would result in adverse health effects. However, the presence of PCB's in solvents and hydorcarbons, such as this site, greatly magnify the adverse health effects of the material as a whole.

B. Threats to the Environment

Hazardous substances are present in the soils and the ground water beneath the Site. Due to the industrial setting that the Site is located in, there does not appear to be a threat to sensitive ecosystems or an exposure to hazardous substances by nearby animals and the food chain. The ground water in the general area is not used for drinking water purposes.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COST

A. Proposed Action

1. Proposed actions description

The objective of this removal action is to reduce the threat of release and the potential for exposure through direct human contact and on-site releases. The proposed action will involve the following:

- site security including 24-hour guard service, repair and maintenance of the fence and gates, additional fencing to restrict access to areas of highly contaminated soils, and the posting of warning signs;

- collection, inventory, stabilization and identification of all containerized material (drums and tanks);

- overpacking of all drums of questionable structural integrity that contain material;

- securing of the ash piles to prevent access and to minimize the migration of hazardous constituents;

- sampling and analysis of debris and soil piles; and

- on-site staging of material until its final disposition can be determined.

2. Contribution to remedial performance

The Site is not on the NPL and there are no plans for its inclusion, at this time. The proposed stabilization is consistent with any long-term clean-up at the Site.

3. Description of alternate technologies

As this action is an emergency removal to stabilize the site under limited funds, the consideration of alternative technologies does not apply.

4. Engineers evaluation cost analysis (EE/CA)

Due to the emergency nature of this removal action, an EE/CA will not be prepared.

5. Applicable or relevant and appropriate requirements (ARARs)

ARARs within the scope of this project to stabilize the Site, including RCRA and the Toxic Substances Control Act (TSCA), that pertain to the collection and stabilization of hazardous wastes and substances, will be met to the extent practicable.

6. Project schedule

Measures to mitigate the threats present at the Site and as outlined in the objectives of this removal action were initiated immediately. An Emergency Response Clean-up Services (ERCS) contractor was selected and site security (24 hour guard) was initiated on July 14, 1994. EPA and ERCS responded to the Site on July 15, 1994. A full mobilization with the manpower and equipment necessary to complete the objectives of this action was initiated on July 18, 1994. It is estimated that the objectives of this action can be completed within four weeks.

B. Estimated Cost

1. Extramural Costs

Regional Allowance Costs	
Cleanup contractor cost including labor, equipment, materials, laboratory analysis	$650,000
20% contingency	$130,000
ERCS Contractor Costs	$780,000

Other Extramural Costs Not Funded from the Regional Allowance	
TAT Cost, including multiplier costs	$ 230,000
EXTRAMURAL COSTS	$1,010,000
Intramural Direct Costs	
INTRAMURAL COSTS	$ 125,000
TOTAL, REMOVAL PROJECT CEILING	**$1,135,000**

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action to contain and stabilize the hazardous substances present at the Site (drums, ash piles and tanks) will increase the potential for a fire and/or explosion due to arson, incidental trespassing and the activities of vagrants and scavengers. Although most of the Site is fenced, there are numerous access points.

The deteriorated condition and improper storage of material contained in tanks and drums greatly increases the potential for the continued release of hazardous substances into the environment. The manner in which known hazardous wastes and substances are stored (uncovered piles exposed to the elements) increases the potential for off-site migration and continued release into the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this removal action.

VIII. ENFORCEMENT

In 1984, the EPA issued a Consent Agreement and Consent Order to Bayonne Barrel and Drum for operating a TSD facility without the required permits. The United States Department of Justice (USDOJ) filed suit against the Site in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 EPA consent order. A RCRA closure Plan for the Site was submitted to the NJDEP on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and the receiving owners of the Site.

Bayonne Barrel and Drum went into bankruptcy, under Chapter 11, in the early 1980's. The principle owner of the property died on April 13, 1991.

In 1989, the USDOJ ordered Bayonne Barrel and Drum to remove the hazardous materials present at the Site, starting with the PCB contaminated waste piles. Some effort was made to remove the

waste piles, but the effort was abandoned upon the death of the owner/operator.

At the current time, no viable Potentially Responsible Parties (PRPs) have been identified that are willing and able to continue the current EPA removal action. EPA will continue to search for PRPs to conduct the next phase and to recover costs incurred.

IX. RECOMMENDATIONS

This decision document represents the selected removal action for the stabilization of the Site located at 150-154 Raymond Blvd. in Newark, New Jersey. This document was developed in accordance with CERCLA, as ammended, and is not inconsistent with the National Contingency Plan (NCP). This decision is based on the admintrative record for the Site.

Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a removal action. This Action Memorandum confirms the verbal authority of Kathleen Callahan, Director of the ERRD, for a total project ceiling of $200,000 and to request a ceiling increase to $1,135,000. Sufficient funding is available in the current Advice of Allowance to finance this project.

Please indicate your approval and authorization of funding for a removal action at the Bayonne Barrel and Drum Site, Newark, New Jersey, as per current Delegation of Authority, by signing below.

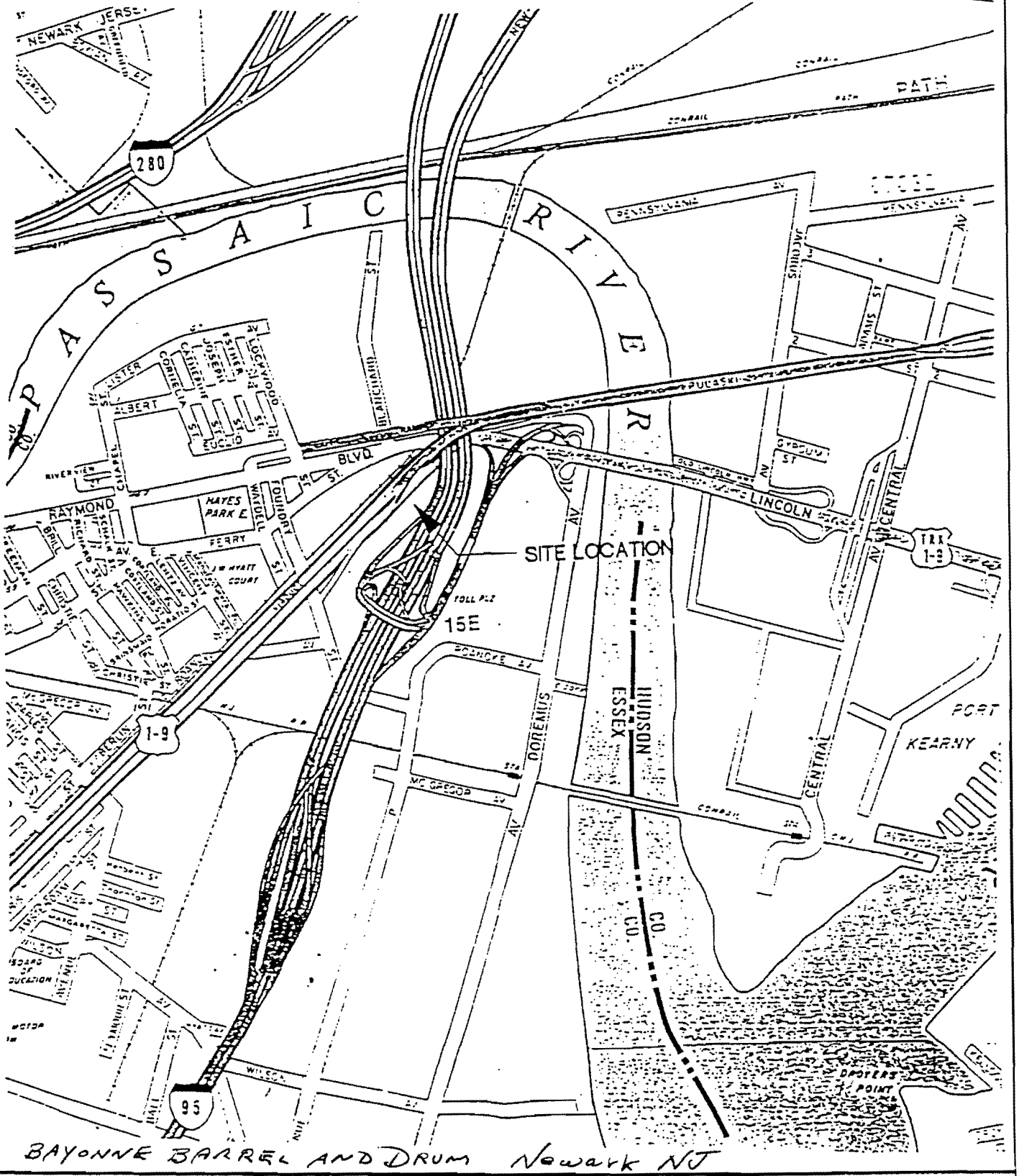
APPROVAL: _____ **DATE:** _____
William J. Muszynski, P.E.
Deputy Regional Administrator

DISAPPROVAL: _____ **DATE:** _____
William J. Muszynski, P.E.
Deputy Regional Administrator

cc: (after approval is obtained)
W. Muszynski, DRA
K. Callahan, ERRD-D
R. Salkie, ERRD-ADREPP
G. Zachos, ERRD-RAB
J. Witkowski, ERRD-RAB-TSS
J. Marshall, EPD
D. Karlen, ORC-NJSUP
M. Seidenberg, ORC-NJSUP
R. Gherardi, OPM-FAM
S. Murphy, OPM-FAM
C. Moyik, ERRD-PS
D. Dietrich, 5202G
T. Eby, 5202G
K. Delaney, NJDEP
M. Pederson, NJDEP
J. Smolenski, NJDEP
C. Kelly, TAT

200013

FIGURE 1



WESTON	Roy F. Weston, Inc. MAJOR PROGRAMS DIVISION	EPA PM N. Magriples	Site Locator
IN ASSOCIATION WITH FOSTER WHEELER CORP., C.C JOHNSON & MALHOTRA, P.C., RESOURCE APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES		TAT PM V. Vicenty	Figure 1

200015

APPENDIX 1

DEPARTMENT OF HEALTH & HUMAN SERVICES

George / John W

Public Health Service
Agency for Toxic Substances
and Disease Registry

2/13

Memorandum

What should we do about this?

RS

Date February 11, 1992

From Arthur Block
Senior Regional Representative

Subject Bayonne Barrel and Drum Site,
Essex County, Newark, New Jersey

To Nick Magriples
ERRD-RA, Edison

The Agency for Toxic Substances and Disease Registry has issued the official health consultation on the B & D Site requested by the EPA Removal Program. Please review the document and advise on the conclusions and recommendations of the consultation.

If you should have any questions, please do not hesitate to call me at (212) 264-9255.

Attachment

cc: Kathy Callahan
Bill McCabe
Richard Salkie
John Witkowski
George Buynoski
Bob Williams
Hal Emmett
Timothy Walker
Greg Ulirsch
Jim Pasqualo

- Magriples

200017

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Agency for Toxic Substances
and Disease Registry

Memorandum

Date January 8, 1992

From Chief, TSS, ERCB, DHAC, ATSDR (E32)
Environmental Health Scientist, TSS, ERCB, DHAC, ATSDR (E32)

Subject Health Consultation: Bayonne Barrel And Drum Site (A089)
Essex County, Newark, New Jersey

To Arthur Block
Public Health Advisor
ATSDR Regional Services
U.S. EPA Region II
Through: Director, DHAC, ATSDR (E32)
Chief, ERCB, DHAC (E32)

BACKGROUND AND STATEMENT OF ISSUES

The Agency for Toxic Substances and Disease Registry (ATSDR) was requested by the Environmental Protection Agency (EPA) in Region II to comment on the public health implications posed by contaminants present at the Bayonne Barrel and Drum site. This site was the subject of a health consultation written by ATSDR on February 6, 1987 [1]. The site is now inactive, but at the time of that report, the facility still had limited usage as a truck repair and shipping container storage area.

Bayonne Barrel and Drum is a former drum reconditioning facility that incinerated contents of drums that arrived at the plant. It is located between the Pulaski Skyway and the New Jersey Turnpike in a heavily industrialized area of Newark, New Jersey. A theater is located approximately 1/4 of a mile southwest of the site, and the nearest residential area is approximately 1/2 a mile to the west [2]. The site is fenced, but the fence contains breaches and is low enough in some places to allow easy access onto the property. The future use of the site has not yet been determined [2].

There are several abandoned buildings on site, one of which contains an ash pile that was generated from incineration activities that occurred at the facility. In the same building, approximately 150 drums are present containing predominantly ash. Some of the drums contain aqueous material [3]. Several of the drums have leaked, and others are in poor condition. Ash piles are also located in the courtyard area and in the southwest corner of the property. The ash pile that is situated in the southwest corner of the property measures 50' X 120', and is also four feet in height [3]. The ash piles have been described as having a sludge-like consistency not prone to generating fugitive dusts [1].

Several surveys were conducted from 1984 through 1988, and included sampling and analysis of soils, ash, and aqueous (drum) materials on site [3,4]. Elevated levels of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), heavy metals, and other contaminants were detected on site.

The concentration of contaminants varied within the ash piles and also between the different piles located on the site. Two PCBs, Aroclors 1248 and 1254, were measured in the ash at a combined concentration of 408 parts per million (ppm) [3]. The ash and area immediately adjacent showed elevated levels of cadmium (1,300 ppm) and lead (8,400 ppm) [1]. The ash also exceeded the EP TOX test limit for cadmium (>1.0 mg/l) and lead (>5.0 mg/l) indicating a high leachability. Toluene diisocyanate and chromium were also detected in the ash, but at levels below health concern.

PCBs were also detected in the soils at a depth of 0-1 feet at a maximum concentration of 65 ppm. Soil contamination occurred at five to seven feet below the surface (near groundwater table) where elevated levels of petroleum hydrocarbons (59,000 ppm) and PCBs (141 ppm) were detected [5].

Aqueous samples taken from one of the drums located in the ash storage room contained benzene (92 ppm), chlorobenzene (78 ppm), ethylbenzene (1,200 ppm), toluene (2,400 ppm), tetrachloroethylene (62 ppm), and xylene (10,000 ppm) [3].

According to the EPA on-scene coordinator (OSC), on-site real-time air monitoring was conducted with an organic vapor analyzer with a flame ionization detector (FID) and with an instrument equipped with a photoionization detector. Ambient levels of VOCs were reportedly below the detection limit (approx. 1 ppm) of the instruments [2]. Sampling locations were not identified.

The Brunswick Shale aquifer that underlies the site has been heavily contaminated from numerous industrial sources in the area and is not used for drinking water or other purposes that would involve human ingestion, inhalation, or direct dermal contact.

DISCUSSION

Abandoned sites are typically attractions for children and vagrants. However, it is unlikely that children will access this site since the facility is situated between two major highways and 1/2 mile from the nearest residence. Therefore, populations most likely to be exposed are vagrants who may enter through breaches in the fence to occupy abandoned buildings, future

workers employed for cleanup activities on-site, or for future commercial operations. For those who might enter the site, exposures to contaminated soil/ash could occur through inhalation, ingestion or through direct dermal contact. In addition to on-site exposures, future workers or those involved in cleanup activities could also inadvertently carry contamination on their clothes and shoes to their homes exposing other family members.

PCBs are a group of organochlorine chemicals that because of their toxicity characteristics in animals and in humans are often a concern at hazardous waste sites. Maximum levels of total PCBs identified during the last sampling were measured in the ash at a concentration of 408 ppm. Toxicologic data and potential exposure scenarios suggest that it is unlikely that any short-term (2 weeks or less) or intermediate duration (1 year or less) exposures by any route would result in adverse health effects. Dermal and inhalation routes to PCBs at this site are unlikely to pose any health threats.

Increased risks of adverse health effects could be calculated if chronic oral exposures to PCBs were to occur at the site. Assuming high ingestion levels of soil (100 mg) containing 408 ppm PCBs by a 70 kilogram (kg) adult worker, estimates of chronic doses (0.0006 milligram/kg/day) could be calculated to exceed by about 100 times the ATSDR's minimal risk level (MRL) of 0.000005 mg/kg/day for chronic oral exposure to PCBs [7]. The MRLs are typically based on the most sensitive indicator of observed non-cancer toxicity, usually from animal studies, since sufficient human data are not often available. The above MRL is based on signs of immunological changes in monkeys exposed by gavage to PCBs in an oil vehicle every day for more than two years [7]. The lowest dose producing the effect was 0.005 mg/kg/day [7], a dose 10 times greater than the chronic estimated dose to adults working on site. Given the circumstances of experimental exposures (oil vehicle and gavage) and the unlikelihood of an adult chronically ingesting relatively large quantities of soil (100 mg), the levels of PCBs at this site appear to pose only a minimal health threat for non-cancer endpoints. For similar reasons, cancer risks would also be minimal.

A potential health threat may exist for future workers and others who may inhale, ingest, or come in direct dermal contact with lead contaminated ash/soil on-site. The magnitude of the health threat would depend on personal habits and frequency of such activities on-site. In addition to direct exposure, on-site activities could result in contamination of clothing and shoes which could then be carried home exposing children, toddlers, and

developing fetuses. Young children are at greater risk due to frequent hand-to-mouth activities and the susceptibility of their developing nervous systems to lead.

While children are normally the primary focus of health concerns associated with exposures to lead, studies of occupational exposures of adults to high levels of lead have shown impaired reaction time and memory. Lead exposure has also been linked to weakness in fingers, wrists, and ankles of adult workers [8].

The potential dose of lead that an adult worker would receive is difficult to determine. However, assuming that a worker ingested 100 mg of soil/ash containing 8,400 ppm lead, a 70 kg worker could receive a dose of lead at 0.012 mg lead/kg/day. Two laboratory studies measuring the effects of oral exposure to lead (as lead acetate) in human volunteers, found decreases in erythrocyte aminolevunic acid dehydrase (ALAD) at daily exposure levels of about 0.01 - 0.03 mg lead/kg/day [7]. The decreases in ALAD indicated that interferences with heme synthesis were occurring. In one of the studies, the decreases in ALAD reached their nadir at about 14 days and remained constant for the remainder of the 21 day study. Decreases were observed as early as 3 days after the initiation of the experiment. Blood lead levels increased from approximately 15 micrograms per deciliter (ug/dL) before the study to 40 ug/dL from ingesting 0.02 mg/kg/day [10]. Other studies have observed peripheral neuropathies (40 ug/dL) and systolic blood pressure increases (30 ug/dL) from lead exposure in the same blood level ranges found in this study [8].

The available data indicate that the lowest dose at which acute exposure (≤14 days) to cadmium demonstrated adverse health effects was for rats that consumed 2 mg/kg/day [9]. At this dose, developmental effects were observed in the young of the exposed rats [9]. At exposures of intermediate duration (15 to 364 days), impaired neurological development occurred in the young of rats ingesting cadmium at doses down to 0.04 mg/kg/day. However, insufficient data are available to assess the developmental effects of cadmium on humans at such doses [9]. The ATSDR chronic oral MRL (exposures ≥365 days) for cadmium is 0.0002 mg/kg/day. This MRL is based on an epidemiological study conducted by Nogawa et al. who observed kidney effects (tubular proteinuria) in humans exposed via food to an estimated 0.002 mg cadmium/kg/day over a lifetime [11]. The MRL was adjusted by an uncertainty factor of ten to account for sensitive individuals in the population. Assuming that an adult consumed 100 mg of ash containing 1,300 ppm cadmium, a 70 kg adult would receive a dose of 0.002 mg/kg/day. This is at the threshold where kidney

effects were observed by Nogawa et al [11]. However it is very unlikely that prolonged exposures such as those studied by Nogawa would occur on this site, therefore the cadmium does not represent a health concern.

The drums contain relatively high concentrations of VOCs in the aqueous phase. Although ambient air sampling was conducted and detected no VOCs, data are incomplete on where these measurements were taken. Thus, the possibility exists that total VOC vapor levels within or near the drums could reach explosive limits. A spark or ignition source near the drums could result in an explosion or fire. Vagrants or trespassers entering the building may produce an ignition source through smoking or by the lighting of fires for warmth. Based on the small amounts of aqueous material stored on site, the potential impact of fires and/or explosions on the nearby community would be limited. Depending on how the drums are stored and stacked, they may also represent a physical hazard to those who gain access to the site.

The potential for off-site contamination via fugitive dust emissions from the ash piles and on-site containers appears to be negligible. The sludge-like consistency of the ash would prevent significant amounts of contaminated dust from migrating to nearby properties. Given the low concentrations of VOCs detected in the ash piles and in outdoor soils, and the distance to the nearest residence (1/2 mile), the threat of VOC emissions to nearby residents at concentrations of health concern also appear unlikely.

CONCLUSIONS

1. The site could pose a health threat to vagrants, future workers, or others engaged in activities on-site that come in contact with or disturb the ash. Another concern is the potential for youngsters being exposed to contaminated dust that has been carried home on the boots and clothes of workers.

2. Drums containing high levels of VOCs may pose a fire, explosion, or physical hazard.

3. Migration of site related contaminants by wind erosion or other environmental transport mechanisms to nearby businesses or residences in quantities sufficient to pose a health threat are unlikely.

4. The fence surrounding the site does not adequately restrict access to the site.

RECOMMENDATIONS

1. Restrict access to the site to prevent the entry of vagrants seeking shelter.

2. If the status of the site changes, ensure that the contaminants are at a safe level for the type of business/activities that would occur on site.

3. Consider removing barrels to eliminate safety hazards.

If any additional information becomes available or if any clarification is needed, please do not hesitate to contact this office at (404) 639-0616.

Allan S. Susten, Ph.D., DABT

Timothy Walker, M.S.P.H.

REFERENCES

1. Report on Bayonne Barrel and Drum, ATSDR Office of Health Assessment, February 6, 1987.

2. Telephone conversation with Nick Magriples EPA, OSC, November 13, 1991

3. RCRA Enforcement Inspection, Bayonne Barrel and Drum, June 2, 1988.

4. Report on Bayonne Barrel and Drum site, Dan Raviv Associates, March 1987.

5. Report on Bayonne Barrel and Drum, Diversified Environmental Resources Inc., January 3, 1990.

6. ATSDR Health Assessment Guidance Manual (draft), July 1990.

7. Draft For Public Comment, ATSDR Toxicological Profile for Selected PCBs, October 1991.

8. Draft For Public Comment, ATSDR Toxicological Profile for Lead, October 1991.

9. Draft for Public Comment, ATSDR Toxicological Profile for Cadmium, October 1991.

10. Stuik, E.J., 1974. Biological response of male and female volunteers to inorganic lead. Int Arch Arbeitsmes 33:83-97 [as cited in Draft ATSDR Toxicological Profile on Lead].

11. Nogawa et el. 1989. A dose response analysis of cadmium in the general environment with special reference to total intake limit. Environ Res 48:7-16 [as cited in Draft ATSDR Toxicological Profile on Cadmium].

cc: M. Lichtveld

ATSDR:DHAC:ERCB:TSS:TWALKER:mrg:1/9/92:639-0616
DOC.:L:BAYON2.CON

Rcvd 10/8

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton, NJ 08625-0028
Tel. # 609-633-1408
Fax. # 609-633-1454

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

SEP 30 1991

Kathleen Callahan, Director
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
26 Federal Plaza
New York, New York 10278

RE: Removal Request - Bayonne Barrel and Drum
150-154 Raymond Boulevard
Newark, New Jersey

Dear Director Callahan:

The New Jersey Department of Environmental Protection & Energy (NJDEPE) hereby submits the Bayonne Barrel and Drum (BBD) site for CERCLA removal action consideration. The following information summarizes the case history and supports the removal request.

The Bayonne Barrel and Drum site was a former drum reconditioning facility occupying approximately 15 acres of Block 5002, Lots 3 and 14. The facility operated as an unlicensed TSD facility from the early 1940's until the early 1980's when the company filed for bankruptcy under Chapter 11.

In 1984, the United States Environmental Protection Agency (USEPA) issued a Consent Agreement and Consent Order to BBD for operating a TSD facility without the required permits. The United States Department of Justice (USDJ) filed suit against BBD in 1988 for continued RCRA and TSCA violations and failure to comply with the 1984 USEPA consent order. A RCRA closure plan for the site was submitted to the NJDEPE on January 4, 1990, but was never formally reviewed because no legal consent instrument was ever agreed upon between the Department and receiving owners of BBD. Mr. Langella, the principle owner of the property and responsible party, died on April 13, 1991.

In 1989 USDJ ordered the owners (BBD) to remove the materials listed below, starting with the PCB contaminated waste piles. Some effort was recently made to remove the waste piles, but the effort was abandoned upon the death of Mr. Langella.

Hazardous wastes are now stored at the site in violation of the Federal Resource Conservation and Recovery Act (RCRA) and the Federal Toxic Substance Control Act (TSCA). These waste include the following:

1. A large area along the northwest section of the property containing partially covered piles of PCB contaminated ash. Another pile of ash along with approximately 200 ash filled drums in poor condition are situated in an abandoned building designated as Building 2.

2. An incinerator used to remove residual material from drums is situated adjacent to Building 2. The ground surrounding this area is covered with a hardened paint sludge, ash and solid chemical waste.

3. Two large vertical tanks of unspecified capacity, purportedly contain petroleum hydrocarbon waste and an alkaline caustic wash waste generated from the drum reconditioning operations.

4. Six unregistered underground storage tanks which may contain toluene, xylene and methylcellosolve.

5. The northwest corner of Building 3 may be contaminated with hexavalent chromium waste based on a characteristic yellow crystalline material observed on a concrete wall.

In addition, there is a large pile of shredded tires and approximately 45,000 "RCRA clean" drums stored on site.

Until recently, the site had been handled as a developer site under an Administrative Consent Order (ACO) executed on November 20, 1990. However, the developers, Pearlman and Pearlman Living Trust, decided that it was not economically feasible to develop the site and subsequently declined to initiate a removal. Although it is believed that First Fidelity Bank may hold a lien on the property, efforts to locate a responsible party have thus far failed and conditions on site continue to persist.

The site is situated within a heavily populated area directly below the Pulaski Skyway. Any discharge, fire, explosion or air release could threaten the local population and seriously disrupt traffic along the nearby roadways.

The Department requests that the EPA stabilize the site by inventorying, characterizing and disposing of the abandoned materials in such a manner as to safeguard the health and welfare of the local population.

Should your staff require additional information, please have them contact David Triggs of the Bureau of Site Assessment at (609) 584-4289. Your prompt notification would be appreciated.

Very truly yours,

Karl J. Delaney
Director

200027

DT/ap

c. Lance Miller, Assistant Commissioner, Site Remediation
Anthony Farro, Director, Publicly Funded Site Remediation
Wayne Howitz, Assistant Director, Discharge Response Element
Bob Van Fossen, Chief - Bureau of Site Assessment
Yacoub Yacoub, Metro Bureau of Field Operations
Richard Salkie, USEPA
George Zachos, USEPA
Dave Triggs, Bureau of Site Assessment

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Agency for Toxic Substances
and Disease Registry

Memorandum

Date December 9, 1991

From Arthur Block
Sr. Regional Representative

Subject Bayonne Barrel and Drum Site/ATSDR Record of Activity
Reference Conference Call/November 27, 1991

To Nick Magriples, OSC, RAB
ERRD/RA

As a follow-up to our verbal consultation, please find attached a written copy of the AROA outlining our discussion.

Should you have any questions or concerns, please advise. A written draft consultation will follow shortly for your review and comment.

Attachment

cc:
G. Buynoski
B. Williams
T. Walker
L. Voyce
J. Pasqualo

12/02/91 15:30

Agency for Toxic Substances and Disease Registry

Facsimile Transmission

Addressee:
Arthur Block
ATSDR Region III

Addressee Telephone Number:
FTS - 264-7662

Facsimile Telephone Number:
FTS - 264-9804

Sender:
Timothy Walker
ATSDR DHAC/EECB
Atlanta, GA

Sender Telephone Number:
FTS 236-0632

Number of Pages: 3
(including this page)

Date: 12/2/91

Subject: Biggonne Barrel & Drum

ATSDR Facsimile Numbers:

Office of the Assistant Administrator
Executive Park, Building 37, Room 3726
639-0700; Fax # 639-0744
Office of Information Resources Management
Executive Park, Building 37, Room 3733
639-0720; Fax #639-0746
Office of Policy and External Affairs
Executive Park, Building 37, Room 3735
639-0727; Fax #639-0744
Office of Program Operations & Management
Executive Park, Building 37, Room 3714
639-0708; Fax # 639-0717
Division of Toxicology
Executive Park, Building 37, Room 3770
639-0730; Fax # 639-0746
Division of Health Assessment & Consultation
Executive Park, Building 31, Room 3134
639-0610, Fax# 639-0654
Division of Health Studies
Executive Park, Building 35, Room 3529
639-0550, Fax # 639-0569
Division of Health Education
Executive Park, Building 31, Room 3164
639-0600, Fax # 639-0668
Regional Services
Executive Park, Building 37, Room 3701
639-0707, Fax # 639-0744
Regional Fax Numbers (FTS# except Reg. 1&7)

Region 1: 617-860-4397	Region 6: 255-2237
Region 2: 264-7611	Region 7: 913-236-2912
Region 3: 597-0994	Region 8: 564-1647
Region 4: 347-4486	Region 9: 454-0582
Region 5: 886-5789	Region 10: 399-2142

Comments: Artie, Here is the AROA for B.B. & Drum. I will be sending you a draft of the Writeup for Review as soon as possible. If you have any ?'s — please call — Tim —

ATSDR Record of Activity

UID #:T X W 6 Date:11/20/91 Time:10:00 am X pm__

Site Name:Bayonne Barrel and Drum City:Newark Cnty:Essex State:NJ

CERCLIS #:_____ Cost Recovery #: A089 Region: 2

Site Status (1) _ NPL X Non-NPL _ RCRA _ Non-Site specific _ Federal
(2) _ Emergency Response _ Remedial _ Other

Activities

_ Incoming Call
_ Outgoing Call
_ Conference Call
_ Incoming Mail
_ Public Meeting
_ Other Meeting
_ Data Review
X Health Consult
_ Health Referral
_ Written Response
_ Site Visit
_ Info Provided
_ Training
_ Other

Requestor and Affiliation:(1) Nick Magriples EPA Region II
Phone:_____ Address:_____
City:_____ State:_____ Zip Code:_____

Contacts and Affiliation

(31 Arthur Block.ATSDR Region II ( )_____
( )_____ ( )_____

1-EPA	2-USCG	3-OTHER FED	4-STATE ENV	5-STATE HLT
6-COUNTY HLTH	7-CITY HLTH	8-HOSPITAL	9-LAW ENFORCE	10-FIRE DEPT
11-POISON CTR	12-PRIV CITZ	13-OTHER	14-UNKNOWN	15-DOD
16-DOE	17-NOAA	18-OTHR STATE	19-OTHR COUNTY	20-OTHR CITY
21-INTL	22-CITZ GROUP	23-ELECT. OFF	24-PRIV. CO	25-NEWS MEDIA
26-ARMY	27-NAVY	28-AIR FORCE	29-DEF LOG AGCY	30-NRC
31-ATSDR				

Program Areas

_ Health Assessment
_ Petition Assessment
_ Emergency Response
X Health Consultation
_ Health Studies
_ Health Surveillnc
_ Disease Regstry
_ Exposr Regstry
_ Tox Info-profile
_ Tox Info-Nonprofil
_ Subst-Spec Resch
_ Health Education
_ Worker Hlth
_ Admin
_ Other

Narrative Summary:

At the request of Nick Magriples from EPA Region II, a conference call was held concerning the Bayonne Barrel and Drum site in Newark, New Jersey. EPA had requested that ATSDR comment on the conditions present at the site and determine if levels of contamination pose a health threat. Arthur Block, ATSDR Regional Representative, and Dr. Steve Haness were also participants in the telephone conference.

The site is an abandoned drum reconditioning facility that contains several ash piles generated from incineration activities. There are also drums containing the same ash and aqueous material. The site is situated between the New Jersey

Enclosures: Yes ( ) No (X); MIS entered: Yes ( ) No (X)

urnpike and the Pulaski Skyway in a heavily industrialized area of Newark, New ersey. There is a theater located approximately 1/4 mile southwest of the site nd he nearest resident is 1/2 mile to the west. The site is enclosed by a ence, but it contains some breeches and is low enough in some places for people o enter easily.

ampling results showed the ash and surrounding soils to contain elevated oncentrations of cadmium (1,300 ppm), lead (8,400 ppm), and PCBs (408 ppm). oil/ash were also contaminated with VOCs and semi-VOCs. Aqueous material in he drums also contained VOCs [e.g. benzene (92 ppm), ethylbenzene (1,200 ppm), oluene (2,400 ppm), and xylene (10,000 ppm).

Nick Magriples described the ash material as being sludge-like, and it was nlikely to generate significant quantities of dust that could impact the surrounding area. I explained that the levels of contamination, specifically the PCBs and the heavy metal contamination, posed an on-site health threat. I went on to explain that sampling data and site information did not indicate that significant levels of contamination (e.g. fugitive ash) would impact off-site areas, and that the threat to people off-site was negligible. There was some evidence of ground water contamination, but the aquifer that underlies the property has been heavily contaminated by industries in the area and is not being utilized for drinking water or other purposes.

Action Required/Recommendations/Info Provided:

1. Restrict access to the site.

Signature: _____ Date: 12/2/91

cc:
T. Walker
E. Skowronski
ERCB File
RIMB File

Enclosures: Yes ( ) No (X); MIS entered: Yes ( ) No (X)

500004